VOL. 45 NO. 12

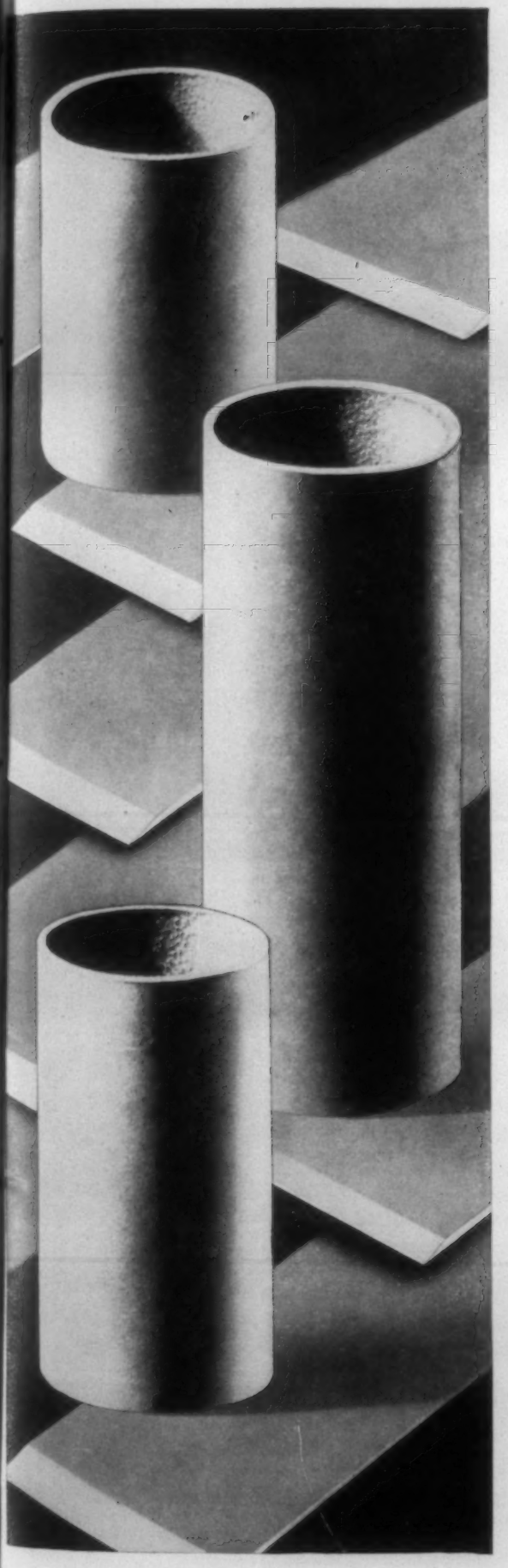
Conclusion of the war has given the reconversion go-ahead signal to textile plants. Numerous problems are attendant to the process; we tell you about them on Pages 19, 20, 69 & 70.

textile bulletin

AUGUST · 15 · 1945

ADVERTISERS INDEX—PAGE 45

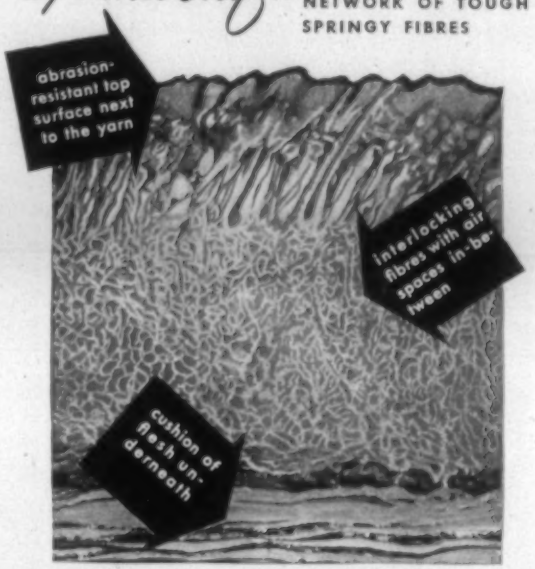
Published Semi-Monthly by Clark Publishing Company, 218 W. Morehead St., Charlotte, N. C. Subscription $1.50 per year in advance. Entered as second-class mail matter March 2, 1911, at Postoffice, Charlotte, N. C., under Act of Congress, March 2, 1897.



TROUBLE FROM ANY DIRECTION

...resisted by Spinna's triple-resiliency

Spinna Calf.. AIR CUSHIONS IN A NETWORK OF TOUGH SPRINGY FIBRES



When an ordinary hard end comes along, Lawrence's Spinna Calf takes it without permanently grooving. It recovers its original smooth surface without delay.

When the traversing yarn pushes the covering toward the end of the roll, Spinna Calf springs right back into shape. It resists hollowing-out much longer than less resilient materials.

To avoid these troubles that shorten roll covering life, specify Spinna . . . and benefit also from a high-friction surface that improves spinning efficiency. It stays kind to the yarn for up to 18 months and more, even in front positions.

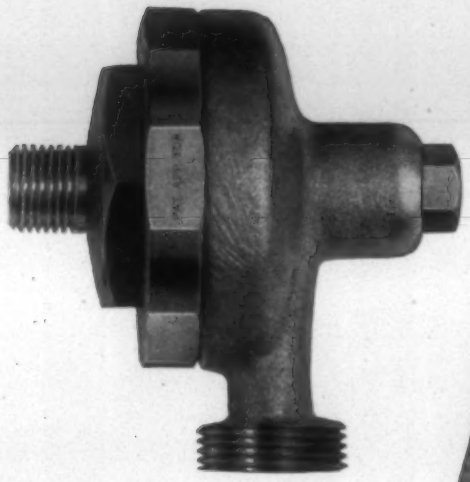
That's why Spinna is the calfskin most generally used.

Lively
SPINNA CALF
ROLL COVERINGS
it's Triple Resilient

The Bahnson **Economizer**

REG. U. S. PAT. OFF.

ATOMIZER



An automatic cold water atomizer embodying a new principle that affords variable capacity and spray quality for maximum economy. Produces a finer spray at a given evaporation with minimum air consumption ... Interchangeable stainless steel air orifices are standard equipment.

Bahnson System

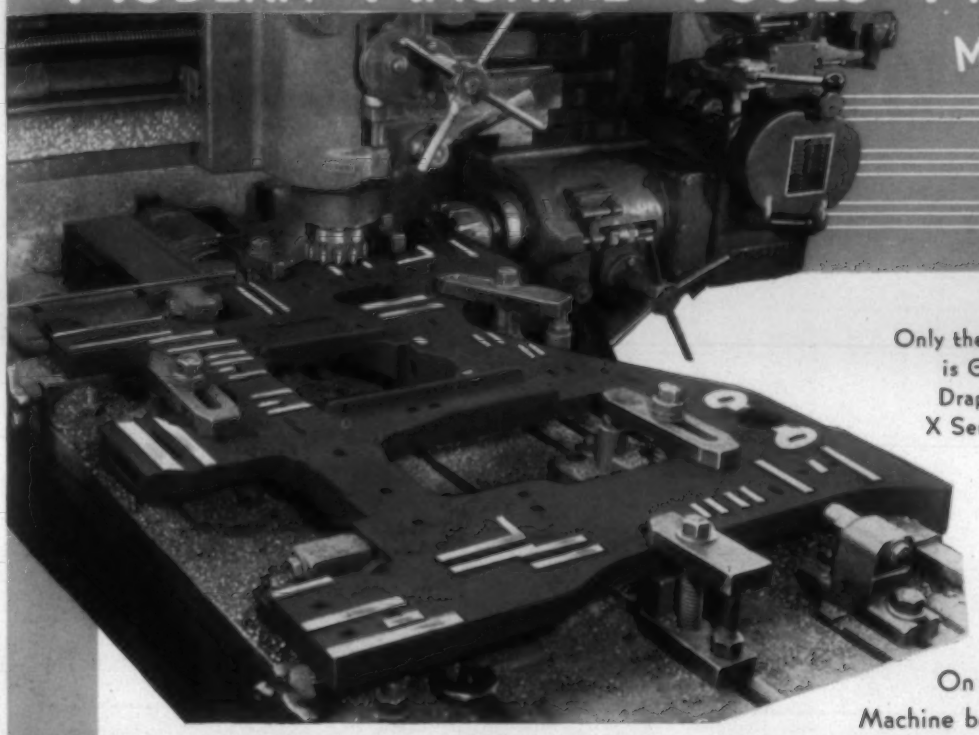
AIR CONDITIONING ENGINEERS

POSITIVE CIRCULATION · LOWER OPERATING COST

THE BAHNSON CO. WINSTON-SALEM, N. C.

886 DREWRY ST.	93 WORTH ST.	976 WEST 6TH ST.	703 EMBREE CRESCENT	W. J. WESTAWAY CO., LTD.
ATLANTA, GA.	NEW YORK CITY	LOS ANGELES, CAL.	WESTFIELD, N. J.	HAMILTON, ONTARIO

MODERN MACHINE TOOLS PRODUCE MODERN HIGH SPEED LOOMS



Only the Best of Machine Tooling is Good Enough to Meet Draper Requirements for X Series High Speed Looms

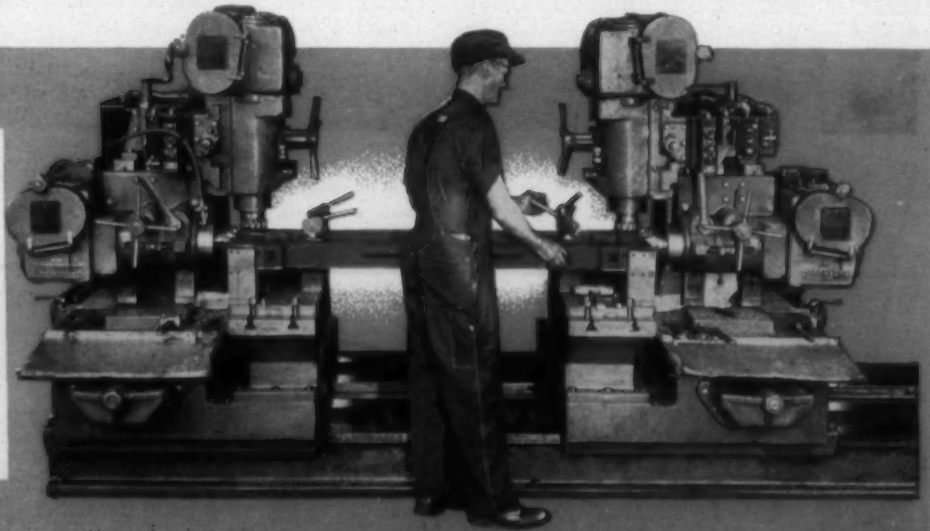
On this Machine, with its specially designed jigs and fixtures, horizontal and vertical surfaces of the Loomside are milled at the same time from a common base. The inner and outer milled surfaces are exactly parallel and all horizontal surfaces are exactly at right angles to the vertical surfaces.

This means that all parts assembled on the loomside will be in perfect alignment.

On the double-end Milling Machine below, both ends of girts and other lengthwise parts are milled both vertically and horizontally in a single operation thus insuring perfectly parallel ends and horizontal surfaces exactly square with the ends.

When these lengthwise parts are assembled with the loomsides, a perfectly square loom frame is the result.

A Square Loom Frame is the foundation for the precision-building of present day X Series Looms



DRAPER CORPORATION HOPEDALE MASS

S-M-O-O-T-H PERFORMANCE...

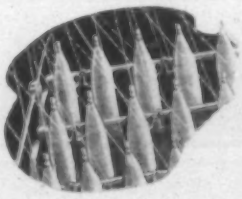
DRUMS! DRUMS! DRUMS!

War needs make it imperative that all empty drums be returned immediately.

Engineered for the Textile Industry

TYCOL #105

...for high speed spindle lubrication



To promote maximum output per spindle, through uniform friction-free operation — that's Tycol's reason for scientifically engineering this new high speed spindle oil.

Tycol #105 is a highly refined, light colored, low viscosity spindle oil which is recommended where spindle speeds of 7,500 rpm or higher are obtained. Its extremely high Flash Point, and marked resistance to oxidation — plus its ability to maintain body under high temperatures, makes it a truly outstanding lubricant for either ball, roller, plain or bath lubricated spindles operating at high speed.

If you are interested in reducing bolster losses, in eliminating spindle drag and thread breakage, learn about this new oil from your nearest Tide Water Associated office. Call, write or wire for complete information today.

TYCOL

TYCOL INDUSTRIAL

ENGINEERED FOR EVERY

M-A-X-I-M-U-M EFFICIENCY

with TYCOL

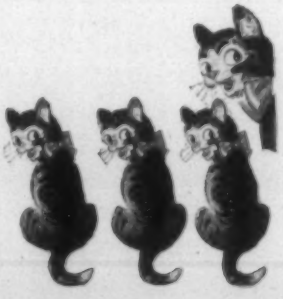
ENGINEERED LUBRICATION

Under all conditions the proved performance of Tycol lubricants more than meets their recommended service.

Rigidly controlled and tested during manufacture . . . and refined from the highest grade crudes, Tycol oils and greases (whether straight mineral or compounded) retain their uniformity* within each classification — from the first drum to the last. This unvarying high quality, plus the scope of the line, accounts for Tycol's wide acceptance among operators interested in maximum production . . . top efficiency . . . lowest operating cost.

Whatever your lubrication need, there is a Tycol oil or grease expressly engineered to afford greater economy . . . longer machine life for every type of equipment. Let a Tide Water Associated engineer help you select the best one for your particular need. Call, write or wire your nearest Tide Water Associated Office for full details.

Makers of Famous Veedol Motor Oil



*** UNIFORMITY.** For clear, concise descriptions of the basic tests used to determine important lubrication properties — Pour Point, Extreme Pressure, Uniformity and many others — consult Tide Water Associated's informative handbook "Lubricania". For your FREE copy write: Tide Water Associated Oil Company, 17 Battery Place, New York 4, N. Y.

LUBRICANTS
SERVICE NEED

TIDE WATER ASSOCIATED OIL COMPANY
17 BATTERY PLACE • NEW YORK 4, N. Y.

PRINCIPAL OFFICES
BOSTON · PHILADELPHIA
PITTSBURGH · CHARLOTTE, N.C.

This is a job for the SACO-LOWELL *Continuous* CARD STRIPPER . . . a saver of *TIME — MONEY* and *COTTON.*

The average mill, operating on middling to strict-middling cotton and producing print cloth counts will strip their cards at least twice in every eight-hour shift.

1. the **TIME LOST** to strip the cylinder and doffer will average 2%.
2. the **COTTON LOST** in cylinder strips will average 0.5% of the cotton production.
3. the stripping requires **ONE OR TWO OPERATORS** per one-hundred cards per shift.
4. the **VARIATION** in the card sliver weight, due to periodic stripping, may amount to 15% to 20%.

COMPARE!

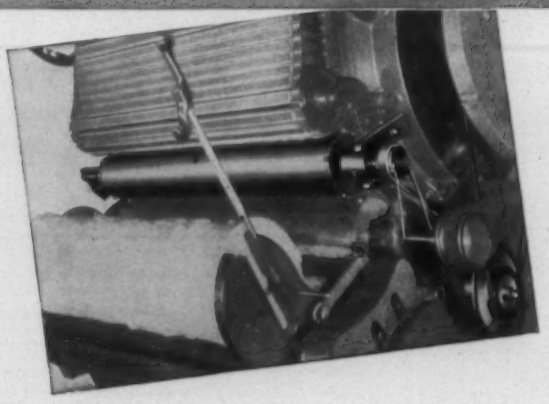
By equipping your cards with the Saco-Lowell *Continuous* Card Stripper,

1. you will **INCREASE** production as much as 2½%.
2. you will **ELIMINATE** the loss of stock now going into cylinder strips.
3. you will **RECOVER** an additional 1% to 2% of the fibre processed.
4. on a two-shift basis these very **TANGIBLE SAVINGS** in operating cost, improved production and cotton saved will create **AN ANNUAL RETURN** on the investment in card strippers **AS MUCH AS 75% TO 100%.**

If you are now using conventional stripping methods, either manual, vacuum or mechanical, our engineers will be glad to make a study of your local conditions and prepare an estimate showing just what the Saco-Lowell *Continuous* Card Stripper can save in your mill.

SACO-LOWELL SHOPS · BOSTON, MASS. · *Charlotte Greenville Atlanta*

SACO-LOWELL *Continuous* CARD STRIPPER



In mills equipped with the SACO-LOWELL Continuous Card Stripper, the cylinder is stripped at intervals ranging from 40 hours, when running low grade stock, to 200 hours, when running the better grades. The doffer is generally stripped every 8 hours without stopping the card. Since the surface of the cylinder is always clean with no waste packed between the wires, the sliver is generally cleaner and more uniform. Practically all of the cotton lost in the form of cylinder strips, a loss inherent in every other method of stripping, is recovered, except the extremely low percentage lost when the cylinder is stripped with the conventional brush just before grinding.

First in America to be completely integrated from basic raw materials to finished dyestuffs . . . . first in America to make every class of aniline dye and color, the name National Aniline is today the synonym for dependability . . . wherever aniline dyes and colors are used.

National Aniline Division

ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET · NEW YORK 6, N.Y.

BOSTON · PROVIDENCE · PHILADELPHIA · CHICAGO · SAN FRANCISCO · CHARLOTTE
GREENSBORO · ATLANTA · NEW ORLEANS · CHATTANOOGA · PORTLAND, ORE. · TORONTO

Stronger warps—

yet still elastic

when you use

HOUGHTO-SIZE

NINE REASONS FOR HOUGHTO-SIZE:

1. A Simple Formula
2. Low Kettle Cost
3. High Breaking Strength
4. Elasticity After Sizing
5. Freedom from Shedding
6. Ready Weavability
7. Fewer Loom Stops
8. Easy De-sizing
9. That "Extra" Quality —Helpful Service

Any size compound should increase breaking strength, but it may do so at the expense of elasticity, making a warp that is brittle and unable to elongate under loom tension.

Houghto-Size, our concentrated warp size compound, is devised to make warps stronger, yet retain elasticity. For example, in a recent Size Check-up Test made at a mill's request, Houghto-Size resulted in 19.8% greater breaking strength than with the size formerly used. Yet elongation was not harmed by increasing the strength. The unsized warp showed 5.87% elongation at breaking point, the competitive size reduced that percentage to 2.78%, but Houghto-Size resulted in 3.51%—a much less decrease in elongation.

For a test of your sizing procedure—at no cost nor interruption to production—write E. F. HOUGHTON & CO., Philadelphia or Charlotte.

HOUGHTON'S TEXTILE PROCESSING PRODUCTS

WARP SIZES . . . SOFTENERS . . . RAYON OILS . . . WETTING AGENTS . . . WOOL OILS

THIS IS NO. 52 OF A SERIES ON

GETTING THE MOST FROM WINDING

Information about winding designed to show improvements in winding equipment and new ideas in the winding operation

LUBRICATION OF UNIVERSAL WINDING MACHINES

SPECIFICATIONS OF LUBRICANTS

Careful laboratory tests and service experience by engineers of the Universal Winding Company have resulted in the establishment of a set of specifications for lubricants to be used on Universal machines.

By requesting from your oil supplier the lubricant with the proper characteristics for the use intended, you may reasonably expect more satisfactory performance from your equipment and longer life of all moving parts.

The five types of lubricants which are used in Universal machines are indicated by numbers in Table No. 1. Table No. 2 tells which lubricant should be used at each point and also recommends the ideal oiling schedule.

TABLE NO. 1

Specification	LUBRICANT				
	#1 OIL	#2 OIL	#3 OIL	#4 NON-FLUID	#5 GREASE
GRAVITY	28	23	25	27	
FLASH	370	360	500	400	
POUR °F.	10	-25	35	30	
FIRE	425	410	600		
S.U. VISC. @100°F.	120-140*	300		250-300	1050**
S.U. VISC. @210°F.	40-42	100	150		
NEUTRALIZATION	.01	0			
EMULSION	50	75			
COLOR	Max. #2	Max. #2		Amber	
CARBON	.20 Max.	.03 Max.	.30		
SOAP CONTENT				LIME 3%	LIME BASE
PENETRATION ASTM WORKED					300-350

*In England, 120-140 S.U. Visc. compares with Redwood Viscosity 110-120.
In Europe, 120-140 S.U. Visc. compares with Engler Viscosity 3.6°.
**S. U. VISC. of Oil @ 100°F. : 200-400

TABLE NO. 2 LUBRICATION SCHEDULES

How Often	Part	Lubricant Number (see Table No. 1)
	NOS. 6 and 8 MACHINES	
Every 8 hours	Gainer Pinion Shaft Bearings	1
Every 20 hours	Cam Groove	5
	Change Gears	5
Every 40 hours	Cam Shaft	1
	Loose Pulley	1
	Spindle	1
	NO. 10 MACHINE	
Every 48 hours	All Bearings	1
	All Pulleys	1
	Gainer Frame	1
	Gainer Pinion Shaft	1
	Cam	5
	Cam Shaft Pinion	5
	Gainer Pinion	5
	NO. 44 MACHINE	
Every doff Keep oil visible in oil cup	Tube Holder Sleeve	1
	Drive Heads	2
	Frames	2
Every 8 hours	Drive Head Ball Bearings	2
Every 40 hours	Builder Cam Lever	1
	Chains	1
	Conveyor Pulley	1
	Switch Roller	2
	Traverse Shaft Ball Bearings	2
Every 80 hours	Wood Cone Bushing	1
Every 120 hours	Franklin Holders	1
	Paraffin Disc Pin	1
	Cone Holders	4
	NO. 45 MACHINE	
Every 4 hours	Bijur System	2
Every 48 hours	Alemite Fitting	4
Every 120 hours	Gainer Case	1
	Spindle Clutch Pulley	1
Every 200 hours	Clutch	4

How Often	Part	Lubrication Number (see Table No. 1)
	NO. 50 MACHINE	
Every 40 hours	End Idler Pulley (Clutch Drive)	1
	Idler Pulley Arm	1
	Traverse Bar	1
Every 80 hours	Emulsion Drive Shaft Bearings	1
	Emulsion Drive Worm Bearing	1
Every 120 hours	Gainer Case	1
	Spindle Reservoir (Belt Gain)	1
Every 160 hours	Other Idler Pulleys (Clutch Drive)	1
	Emulsion Drive Worm Wheel	3
Every 500 hours	Spindle Reservoir (Gear Gain)	1
Every 6 months	Emulsion Roll Shaft Bearing	4
	Alemite Fitting	4
	Emulsion Drive Change Gear	5
	Emulsion Drive Sprocket Chain	5
	NO. 60 MACHINE	
Every 20 hours	Change Gears	5
	Cam Groove	5
Every 40 hours	Silent Chain	3
	Cone Holder	4
	All Other Gears	5
	All Other Points Not Mentioned	1
Every 80 hours	Clutch Grease Cup	5
Every 160 hours	Motor Oil Cups	2
Every 6 months	Drum End Bearing	1
	NO. 90 MACHINE	
Every 80 hours	Drive Shaft Bearings	1
Every 240 hours	Frames	1
	NO. 99 MACHINE	
Every 40 hours	Chain	1
Every 80 hours	Drive Shaft Bearings	4
Every 6 months	Chain Coupling	5
Ask for Chart	All Other Parts	1

*Reg. U. S. Pat. Off.

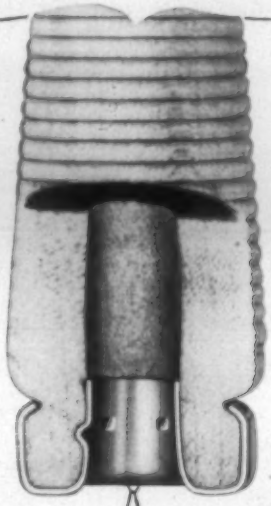
See our Catalog in TEXTILE WORLD YEARBOOK 23.5.10

"THERE'S A UNIVERSAL WINDER FOR EVERY TEXTILE NEED"

UNIVERSAL WINDING COMPANY

PROVIDENCE BOSTON PHILADELPHIA UTICA CHARLOTTE ATLANTA

U. S. "ARMORED" WARP BOBBINS
beat wear . . trim costs . . improve production



"PENNY-WISE" Bobbin buying never pays off to anyone – except, perhaps, your competitors! Paying a *little* extra for the best type warp bobbins saves a *lot* of money in the long run. That's why farsighted mill-men look at costs, not price, when they buy.

YOU PAY only a little more for U S Warp Bobbins "Armored" with combination brass shields and bushings. But this extra built-in endurance gives you year after year of trouble-free performance. Protected against splintering and splitting, they always seat properly on the spindle.

PUT U S BOBBINS IN YOUR POSTWAR PRODUCTION PLANS

YOU AVOID the vibration, breakage, and reduced production that occurs when unprotected bobbins wear out of round. You avoid warping and freezing on spindles, and extra expense for reaming. And, trouble from heat generated by high speeds and heavier packages will pass you by.

FOR ANY SYSTEM of spooling and warping, including the Barber-Colman, U S can provide bobbins with the proper type of combination shields and bushings. Talk to a U S representative about your requirements. He can show you just what you want – in Bobbins – and in Shuttles, Cones, Spools.

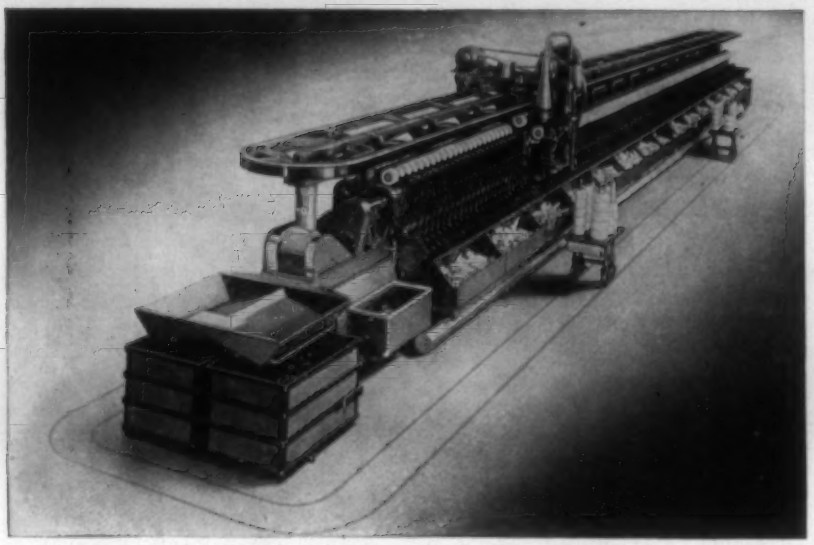
US BOBBIN & SHUTTLE CO.

PROVIDENCE, R. I.
GREENVILLE, S. C.
CHICAGO AGENT:
Albert R. Breen,
20 E. Jackson Blvd.

LAWRENCE, MASS.

CANADIAN AGENT:
W. J. Westaway
Montreal, Que. – Hamilton, Ont.

JOHNSON CITY, TENN.
CHARLOTTE, N. C.
ALABAMA AGENT:
Young & Vann Supply Co.
Birmingham

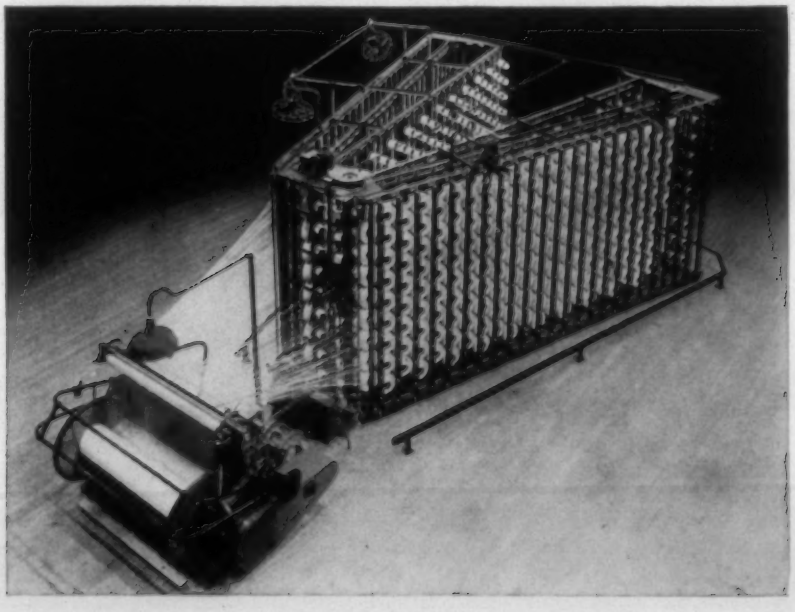


BARBER-COLMAN AUTOMATIC SPOOLER

THIS TEAM OF MACHINES MAKES BETTER GOODS

Barber-Colman Spoolers and Warpers are engineered to work as a *team* in the making of better beams that will produce better goods at lower cost. Actually, most of the benefits gained originate from the action of the Automatic Spooler, with important added benefits from the Super-Speed Warper. The Barber-Colman Spooler removes kinks pneumatically, ties in new bobbins with uniform, correctly-tied, short-tailed true weaver's knots, breaks out all gouts and slubs, and handles the yarn with low air-friction tension that preserves a maximum of original elasticity. The Warper winds at high speed under low uniform tension, making a firm, smooth concentric beam with yarn defects removed. Production efficiency is improved by a substantial reduction in warper stops and loom stops, as proved by exhaustive checks of actual mill production records, reducing seconds in the finished cloth. Barber-Colman equipment is a *must* for every modern mill that aims to meet coming competition!

BARBER-COLMAN SUPER-SPEED WARPER



AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

BARBER-COLMAN COMPANY

ROCKFORD • ILLINOIS • U. S. A.

FRAMINGHAM, MASS., U. S. A. GREENVILLE, S. C., U. S. A. MANCHESTER, ENGLAND

gear your drives to more efficient power transmission

8 Points of Balance

1. Wide margin of strength.
2. Minimum inelastic stretch.
3. Uniform flexibility.
4. Maximum resistance to structural breakdown.
5. Smooth running.
6. Maximum traction.
7. High resistance to side wear.
8. Correct lateral reinforcement.

These 8 Points are correctly embodied in every Condor V-Belt. Other factors being equal, the useful life of a V-Belt is limited by excessive stretch.

Every Condor V-Belt has these 8 Points of Balance engineered into it — every Condor V-Belt is designed to give you more efficient power transmission, greater production and added profit through longer service life. And every Condor V-Belt does just that.

Stout, tough pre-stretched Whipcords carry the load smoothly, and are the Strength Members that fortify the FLEXLASTICS in which they are embedded. The FLEXLASTICS dissipate the heat of internal friction and high-speed flexing while providing a cushioned, smooth-running V-Belt.

Condor V-Belts are only one of the many MANHATTAN Products in which FLEXLASTICS, with engineered and correctly placed Strength Members, deliver added service. There are Paranite-G.O.P. Oil-Proof V-Belts with the same scientific principle embodied in their construction, but with G.O.P. FLEXLASTICS throughout for service where oil or excessive temperatures exist. The Non-Spark Feature for guarding against danger of fire, explosion and hazards from static is restricted but will be ready for your post-war use.

Write now for Condor V-Belt Bulletin 6868 B.

Condor Belts are now made in the dark, war-time color. The term FLEXLASTICS is an exclusive MANHATTAN trade mark. Only MANHATTAN can make FLEXLASTICS.

THE MANHATTAN RUBBER MFG. DIVISION

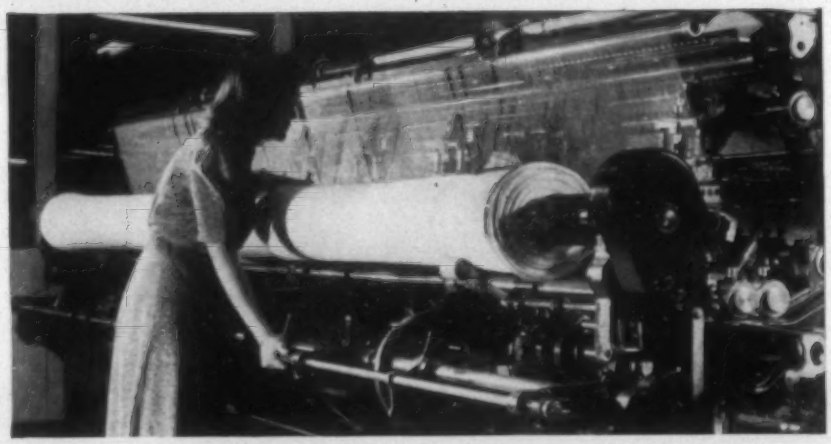
OF RAYBESTOS-MANHATTAN INC.

Executive Offices and Factories — PASSAIC, NEW JERSEY

RAYON REPORTS

Published Monthly by American Viscose Corporation, New York, N. Y. AUGUST, 1945

RESEARCH DEPARTMENT USES MILL-SIZE MACHINERY FOR TEXTILE STUDIES



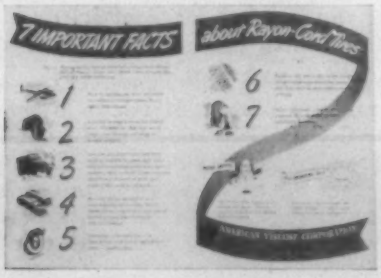
The Textile Research Department of the American Viscose Corporation, at Marcus Hook, Pa., is uniquely equipped for the study of rayon textile production. It contains full-size commercial machinery that duplicates much of the equipment used throughout the textile industry for the handling of rayon, from raw stock to finished yarns or fabrics. The tricot knitting machine shown here is typical of the equipment with which the Department works. This machine knits fabric in finished widths up to 108 inches.

"CROWN" TESTED TAGS TO 446 ACCOUNTS IN MONTH

A measure of the follow-through involved in the release of CROWN Tested identification to garment manufacturers receiving CROWN Tested fabrics may be seen from the fact that 446 accounts received identification tags in a single month. Most of these accounts require personal contact. Those who haven't heretofore received CROWN Tested fabrics sign the Tag Agreement, under which they agree to use such identification only on garments made from CROWN Tested fabrics.

In addition, information on the type of merchandise they intend to make from these fabrics is obtained, including the number of yards required for each garment. In most cases, a sample garment is examined for style and workmanship and becomes a possibility for inclusion in CROWN Tested merchandise advertising. Another significant point is that calls on these manufacturers must be made immediately; under today's conditions, fabrics are received and garments are cut and shipped within a very short space of time.

INFORMATION PROGRAM ON RAYON TIRE CORDS



In a current series of special advertisements, the American Viscose Corporation is presenting impartial information on the performance of heavy duty tires made with rayon cord. The advertisements are appearing in the following magazines: *Bus Transportation, Commercial Car Journal, Tire Review, India Rubber World, Rubber Age.*

"RAYON" MAGAZINE HELPS SAVE 8000 KILOS OF YARN

The magazine, *Rayon*, published in Spanish by the American Viscose Corporation for distribution throughout Latin America, is finding an interested audience among users of rayon in this area. An indication of its value is found in this typical case. One company, which was having trouble sizing acetate yarn, followed suggestions on this problem made in a *Rayon* article. As a result, they were able to size and weave 8,000 kilos of yarn which they had laid aside as beyond possible use.

textile bulletin

Vol. 68 August 15, 1945 No. 12

War's End Gives Textile Industry A Green Light, But There's Heavy Traffic on the Reconversion Road

By BERT C. CLARKE, Washington Editor

ENDING of World War II will certainly have an effect on the textile industry, but for the time being at least, some Federal agency controls and priorities applicable to textile production will remain in effect. However, the War Production Board is removing all priorities and controls as rapidly as possible, consistent with needs of the still-large armed forces or meeting the pressure of existing bottlenecks. Construction work on plant changes, additions and enlargements is outside of these controls and in the scope of new undertakings which can be launched without delay. Government bureaus are moving fast to speed reconversion and readjustment; there is a desire to make the process easy for management and for workers, with as few displacements, delays and annoyances as possible.

The integrated plan of the Truman Administration for orderly resumption of peacetime industrial operations has been announced by WPB's Director J. A. Krug and War Mobilization and Reconversion Director John W. Snyder. Basically, Mr. Krug's plan is the one which most vitally affects orderly and rapid transition and charts the program of release from wartime controls as well as access to needed equipment and raw materials for civilian production. Mr. Snyder defines the over-all problem of transition, maintenance of inflation controls and continued output of supplies needed by the armed forces.

Some of the high points of Mr. Krug's program, particularly appropriate to the textile industry, are:

(1) All but a handful of war contracts and war materials orders will be cancelled within a short time, leaving industry free to take up civilian goods production as rapidly as is practical. The Army's Quartermaster Corps is now sending telegrams which contain notification to textile mills to discontinue work on military orders; this cutback is affecting some 75 per cent of wartime procurement needs. Both the Army and Navy are serving cancellations directly on the contractors involved, with notification being routed through the Joint Army-Navy Purchasing Office in New York and various depots. Army and Navy liaison sections in WPB's textile, clothing and leather bureau as well as the bureau staff itself are being consolidated in order to facilitate the handling of necessary paper work and changes in "L" and "M" orders.

(2) Release of needed materials for a huge industrial building and plant program, through orderly relaxation of industrial construction controls. This plan, designed to absorb the manpower and materials freed by military cutbacks is already in effect.

(3) Orders controlling materials that are still in short supply, such as textiles, will be retained in effect until existing shortages are eased or until there is no longer the danger of a buying scramble by consumers.

(4) Inventory controls will be retained until the danger from hoarding supplies, pre-emptive buying and stockpiling by a few at the expense of many, is over.

(5) WPB will retain its wartime powers for breaking bottlenecks or giving protection considered necessary to military or highly-essential civilian or export needs. These powers will be effected only within the limits of necessity, and business should not rely on priorities help for conducting its normal activities.

(6) WPB will co-operate with the Office of Price Administration, War Manpower Commission and other Federal agencies whose "operations are of equal importance to the rapid expansion of civilian production."

Mr. Snyder said that the end of the Pacific war raises six highly-important questions in the general field of reconversion. They are:

(1) Military contracts—all of these will be terminated immediately, except those required for experimental and development purposes and for maintenance of the armed forces. The largest continuing item will be food.

(2) Demobilization—at least 7,000,000 men will be

returned to civilian life within the next 12 months. The Army is demobilizing men at the rate of 170,000 a month, and this rate will be speeded up to 500,000. The former basis for releasing will be continued. Both the Army and Navy will continue to draft men on a reduced basis.

(3) Unemployment and manpower—all controls over manpower are removed, and the compulsory 48-hour week ended at once. The United States Employment Service will devote its best efforts to re-employing displaced workers. Unemployment is currently estimated at 1,100,000 persons, and expected to reach 5,000,000 or more within three months, and perhaps 8,000,000 by next spring. Some workers will face extended periods of unemployment.

(4) Production and distribution controls—where possible, they will be removed at once. Only those will remain in effect where needed to expedite production, break bottlenecks, prevent inventory hoarding or to assure economic stabilization. Rationing of certain scarce commodities must continue for awhile, but restrictions on others will be lifted immediately. Transportation restrictions must continue for awhile, temporarily. How long all controls continue depends on how long, how much and how quickly business expands its output.

(5) Price and wage controls—dangers of inflation will remain with us for awhile. As long as serious shortages continue, price ceilings on short materials and products must be maintained as a barrier against inflation. Rent controls will continue. Wage stabilization will be continued. Wherever price ceilings are not endangered, collective bargaining will be restored. Wage and price increases will be allowed to correct sub-standard pay scales, relieve hardships of individual workers or enterprises, and where necessary, stimulate increased production.

(6) Legislative program—a number of legislative enactments are needed, to speed reconversion or mitigate hardship cases. These include higher unemployment compensation benefits; revision of the Fair Labor Standards Act to increase minimum wages; tax revision to stimulate production and maintain markets; appropriations for planning and carrying on public works; adequate appropriations (which were heavily slashed by Congress) for USES, and retention of USES under Federal control rather than returning it to state controls.

Cancellations of Army and Navy textile contracts were wired to many mills very soon after the announcement of Japan's surrender. The exact effect that these cutbacks will have on the industry is not immediately evident, since the extent of cancellations has not been listed officially, but it is certain that many more yards of civilian fabrics soon will be scheduled for production.

The reconversion director stated flatly that the United States is going to have to go through a drastic change-over in its economy, because dislocations resulting from lengthy, all-out war effort have been severe and far-reaching. However, he thinks that the country can do the job in a minimum time and in the same spirit in which the war was prosecuted. Getting down to particulars, he said that "textile plants will require relatively small reconversion to expand civilian production." He also asserted that all Lend-Lease programs are under review and "it is planned to stop all Lend-Lease shipments except to those countries involved in supplying troops stationed within their borders, or involved in the shipment home of troops for demobilization."

Reports to the Committee for Economic Development indicate that the American textile industry plans to produce 27.2 per cent more goods during the first full year of peace than it turned out in 1939. C.E.D. lists the 1939 value of textile manufactures (in millions of dollars) at $3,930.7, and estimates that the corresponding figure for 1946 (assumed to be the first full year of peace) at $4,997.9.

Textile Machinery Situation

In a report issued this month five days prior to President Truman's announcement of the Japanese surrender, the joint Army, Navy and War Production Board committees on critical materials and products called attention to the currently inadequate supply of textile machinery. Until the war ended textile machinery shops were operating at 45 to 50 per cent of 1940-41 production; remaining production capacity during the past three years was devoted to ordnance work. New machinery is needed badly in textile mills. Military requirements made it necessary for plants to produce heavier yarns and fabrics on machinery which was not built for the job, with the result that equipment wore out faster than under normal circumstances. With ordnance contracts cancelled, the shops should be able to reduce their backlog of orders substantially and quickly, as soon as skilled builders return.

The Army's 75 per cent cutback in textile procurement ranks just behind cancellations effective on aircraft, munitions, artillery and tanks. Cutbacks amounting to 275,000,000 yards of broad woven cotton fabrics and practically 100 per cent of all wool cloth have been announced. Most drastic cuts are in cotton duck and webbing—a more than 90 per cent reduction. Poplin, marquisette, albert twill, narrow sheetings, high-sley print cloths, herringbone twill and canvas padding come under complete contract termination. In anticipation of this situation, the Quartermaster Corps during the past several months drew up schedules of stop-work stages which are now being implemented by the various divisions of the textile industry. A cutback in the fragmentation bomb chute program has been considered automatic with the war's end. But in the tire cord end of the business producers still feel that few cutbacks are imminent, and they go on the recent official declaration that this program will continue for a long time and on a large scale. The Navy's announcement of its extensive personnel demobilization will preclude continuance *(Continued on Page 58)*


Color...
IT'S STILL THE MASTER SALESMAN
Nearly 20 years ago, we advertised color as the "Master Salesman." It STILL holds that distinction!
Colored yarns, properly used, lift textile fabrics above price competition. Mills, as well as converters, benefit accordingly.
Yarn dyeing specialists for 35 years, we can help designers to select the best colors for a given fabric and can help mills to obtain the necessary yarns and to run them with maximum profit.
Any one of four Franklin Process plants can serve you. No matter which you select, the quality of your dyeings will be the same.
The time is not far off when you will NEED Color—the Master Salesman. Why not put him on your payroll NOW?
Franklin Process
LARGEST PACKAGE DYERS IN THE WORLD
New York Representative, 40 Worth Street
Chicago Representative, 100 West Monroe Street
PROVIDENCE
PHILADELPHIA
GREENVILLE
CHATTANOOGA

TRITON 770

For IMPROVED

Kier Boiling Efficiency

TRITON 770 is more than an efficient wetting agent. It retains its efficiency *throughout the boil* under all kier boiling conditions—providing more uniform circulation, easier washing-down and better bottoming.

TRITON 770's effectiveness in low concentrations, its outstanding resistance to hard water, its superior dispersing action, its excellent sudsing and rinsing properties—all speed and improve most textile wet processing operations.

Write today for detailed information and experimental samples of TRITON 770, a member of the Rohm & Haas family of *fine chemicals* for the Textile Industry.

ROHM & HAAS COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Manufacturers of Chemicals for the Textile, Leather and other Industries . . . Plastics . . . Synthetic Insecticides . . . Fungicides . . . Enzymes

Electrocoated Fabrics Process Now Ready for Commercial Application

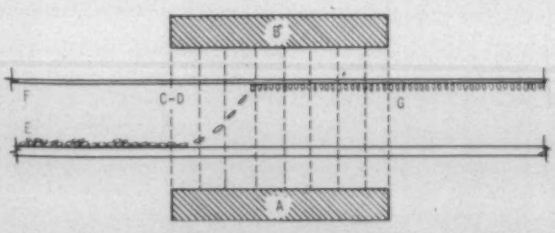
THE old high school physics trick of rubbing a glass rod with a piece of silk and thereby making it possible to attract bits of paper to the rod has given birth to a new business, that of electrocoating fabrics. And, the General Electric Co. predicts, in post-war years the design on milady's dress, the upholstering on a chair and even the nap of a rug may be electrocoated rather than woven.

The principle behind the old trick—that of creating static electricity—has been known to mankind for 2,500 years, but it was not until a few years ago that Behr-Manning Corp. of Troy, N. Y., with the aid of General Electric equipment, began to apply it in making coated abrasives or sandpapers. Then followed the question: Why not fabrics? Experimentation with successful results ensued, but the war intervened, and the new wrinkle, as far as large scale production is concerned, was tabled for the duration.

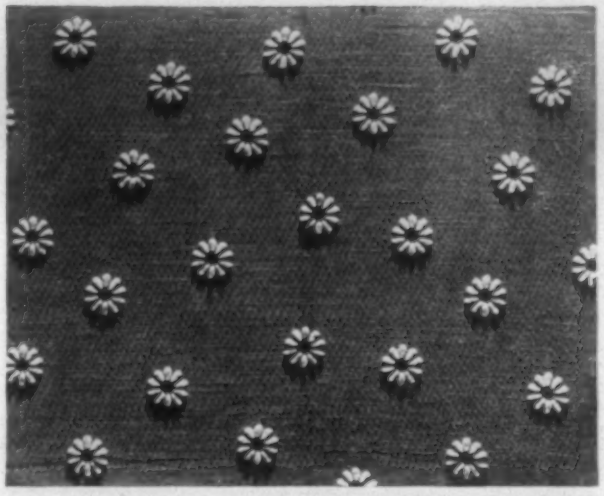
Electrocoating fabrics, or the rod and silk trick "grown up," is a process whereby cloth fibers sent through an electrostatic field become charged, stand on end, and are hurled perpendicularly against an adhesive-coated "backing" fabric. The result is creation of either a new fabric or a design on the original fabric.

The electrostatic field is set up by General Electric high voltage electrical equipment. Loose fibers, or flock, when conveyed on a belt through the electrostatic field, receive a charge of the same polarity as an electrode at the bottom of the field. Because of the similar polarity, the fibers are repelled upwards with such force that they are hurled perpendicularly into an adhesive-coated "backing" fabric, which is being run simultaneously through the field. Ends of the fibers are buried in the adhesive of the fabric. Final step is conveying the resultant electrocoated fabric through a dryer for "curing."

In making designed goods, the pattern is printed with adhesive on the "backing" fabric. When run through the electrostatic field, the fibers cling only where the adhesive design appears.



The simplified drawing above explains principles of the electrocoating fabrics process. 'A' is the negative electrode; 'B' the positive electrode; 'C-D' the lines of electrical force; 'E' the conveyor belt carrying loose flock fibers; 'F' fabric backing with adhesive side down; and 'G' flock fibers anchored vertically in adhesive surface. Loose fibers, or flock, (E) enter electrostatic field, receive a charge of the same polarity as electrode (A) and are thus repelled vertically upwards to backing cloth where they become secured by means of adhesive coating on backing cloth (G).



The finished product following the electrocoating process. Instead of being woven, these heavily-tufted flowers are simply innumerable individual fibers which have been made to adhere to backing cloth according to a pattern first laid out in adhesive. Fibers can be impelled in like manner upon a cloth totally coated with adhesive so that an entirely napped effect can be achieved. Thus evolves a new process for making such products as upholstery and rugs.

Through the electrostatic process, fibers will cling to any kind of adhesive-coated "backing," even paper of the quality of rough newsprint. An entirely synthetic fabric can be created by impelling synthetic fibers upon a sheet of cellophane. As novel as it may seem, the resultant fabric is a tough, densely-napped cloth that might be used as a table runner. Extremely short fibers can be impelled against leather or leather facsimile so as to create a new kind of suede shoe leather. In like manner, "velvet" lining for anything from a jewelry box to a casket, can be made. A recently conceived application is that of upholstering turntables for phonographs.

The full field of application is virtually unexplored as yet, according to Behr-Manning engineers. Applications now conceived for post-war production, however, include women's dresses and blouses, scarfs, neckties, overcoats, window drapes, curtains, bedspreads, bath mats, hosiery, hats, upholstering for furniture, automobiles and airplanes, rugs and carpeting.

According to the maxim that stamina of any fabric is approximately proportional to its density, the durability of electrocoated fabrics will surpass that of woven goods. Electrocoated fibers in one square inch of fabric number as high as 300,000, which amounts to ten times the density of fibers in woven goods. Each electrocoated fiber, moreover, is exactly perpendicular to its base, affording a greater resiliency and uniformity in appearance. Comparison durability tests on standard textile testing machines show ratios of three to one in favor of electrocoated fabrics.

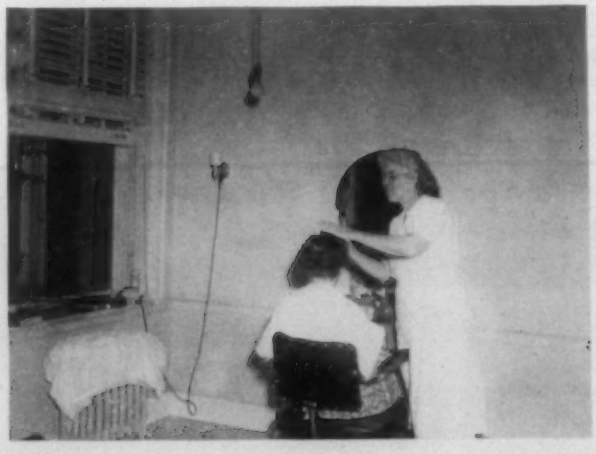
Activities Building at Porterdale, Ga., Offers Bibb Employees Many Facilities

By H. W. PITTMAN

IN 1942, when I became agent for Bibb Mfg. Co. operations at Porterdale, Ga., there was an increasingly obvious need for an employees' activities building. In time, plans for such a structure were drawn, construction was begun and finished, and members of the "Porterdale family" took over. This building has met a long-felt need, and every nook and corner is used to advantage. As each room was completed, it was occupied and put to immediate use.

The entire community of Porterdale appreciates the Anderson Building, as evidenced by the wording on a bronze tablet in the lobby: THIS BUILDING IS DEDICATED TO

Lunch hour in the Anderson Building nursery, where employees leave their children while on duty. The playground is immediately off to the side of the nursery, on the building's north.



The beauty shop in the Anderson Building, used by the women of Bibb's 'Porterdale Family,' is a busy spot.

The canopied front entrance and northern profile of the Anderson Building. Swings may be seen in the shady nook where the nursery children play.

On the south side of the building, a well-kept and spacious lawn stretches up to the tiled terrace. At left is the large wing which houses the men's club rooms. Bibb Mfg. Co. employees at Porterdale, Ga., make constant use of the many facilities afforded by the handsome building.

WILLIAM DICKSON ANDERSON WHOSE INTEREST IN THE WELFARE OF THE PEOPLE OF PORTERDALE MADE POSSIBLE ITS ACHIEVEMENT. Due to the fact that William D. Anderson, president and chairman of the board, had always taken a keen interest in the people of Bibb Mfg. Co., we agreed that it would be very appropriate to name this beautiful building for him.

The largest room, built for and occupied by the Four

Square Club and the Night Hawks Club, is well-equipped with chairs, lounges, pool tables, checkerboards, card tables, pianos and a refreshment stand. This is the daily meeting place of numerous male employees. The next largest room is occupied and used by the Masons and other secret orders.

Plans for Returning War Veterans

The only remaining large room on the second floor is to be equipped for young men's organizations when enough of them return from the armed services to make full use of it. At present the space is being occupied by an overflow class from the local school.

Three of the rooms on the lower floor are used by smaller groups—with one room equipped for kindergarten work, one a day nursery for children whose parents work in the plants, and one for the use of our social worker. In addition, there is a small kitchen in which the children's noon meals are prepared.

Three other rooms on the lower floor are used by the company's dentist, who constantly provides excellent service to Bibb workers and their families. A well-equipped and up-to-date beauty parlor occupies the remaining space on this floor; it is patronized heavily by women of the "Porterdale family."

The dental clinic maintained in the Anderson Building is considered second to none in its complete and modern equipment as well as professional services offered.

Headquarters of the Night Hawks Club and Four Square Club at an off-moment between shifts. The camera was resting on the soft drink bar, which offers service during all hours that club rooms are open.

Conventions and Meetings To Be Resumed in Textile Industry

THE Office of Defense Transportation's Committee on War Conventions has relaxed its restrictions on associational meetings to the extent of permitting out-of-town attendance totalling 150, instead of the previous limit of 50. Thus the textile industry is expected to resume many of state, sectional and national conventions, which until now have been discouraged by ODT. Another aid to convention-goers is the discontinuance of gasoline rationing.

Southern Combed Yarn Spinners

First peacetime textile industry convention will be that of the Southern Combed Yarn Spinners Association Sept. 7 at the Gastonia (N. C.) Country Club. The program will begin promptly at 11 a. m. with the morning session, followed by a luncheon and an afternoon session. Speakers will include Ward Delaney of the Institute of Textile Technology at Charlottesville, Va., Cyrus W. Ching of United States Rubber Co. and Elmer F. Andrews of New York. Others expected to address the meeting are Col. James W. Kinard of the War Production Board and O. Max Gardner of Washington.

Piedmont Section, A.A.T.C.C.

The officers and sectional committee of the Piedmont Section of the American Association of Textile Chemists and Colorists have set their first meeting for Oct. 13 at Charlotte. This annual meeting, the first to be held in many months, will take place at Hotel Charlotte. It will feature a banquet and election of new officers. Room reservations should be made direct with the hotel, and banquet reservations with John B. Neely of Burlington Mills Corp.

Other textile industry organizations expected to resume meetings include the Cotton-Textile Institute, North Carolina Cotton Manufacturers Association, Cotton Manufacturers Association of South Carolina, Cotton Manufacturers Association of Georgia, Alabama Cotton Manufacturers Association, Southern Textile Association and Textile Operating Executives of Georgia.

Experience in Dyeing Under Wartime Restrictions May Prove To Be Valuable

– By L. M. RICHARDSON –

Wartime restrictions on many types of dyestuffs caused many headaches to job-dyers of yarns who had established a good trade name for better-quality dyed yarns which had good wash-fastness. They wanted to keep their good reputations, and to do so were forced to carry out extensive practical research in the development of formulas that formerly were not rated as satisfactory. Through careful work they were able to build up a good range of fast-to-washing colors suitable for various lines of textile goods. Their experiences in adapting dyeing procedures to restricted materials is expected to prove of value in the future.

THE trend during the past five years or so has been to more fast-to-washing dyed yarns for the weaving, knitting and hosiery industries. Progressive job-dyers tried to meet this in the face of the decreasing range of colors to choose from.

Dyestuff makers, when they had full ranges of fast-to-washing developed colors, pushed these strongly and had them widely established. As more plants started improving their line of wash-fast colors, some yarn dyers used knowledge of the chemical make-up of certain inexpensive direct and developed colors to work out fast-to-washing dyed shades at considerably less cost than the more expensive developed colors that many plants were running from their first established formulas. The first colors worked out were browns; these had been offered many years previous to yarn dyers under the name of para-developed colors. These para type colors are direct colors which may be dyed as directs or developed by diazotizing and developing with beta napthol, "MTD" or "Z" type developers.

Practically all of these off-types have an animol (NH_2) or hydroxyl (OH) in their chemical make-up, which permits them to be diazotized and developed but does not give them the best wash-fastness. Authorities passed some of these colors as off-types and over the past few years dyers and plant chemists have found that many of the fast color bases and salts can be coupled with these direct colors.

It is a generally accepted idea that the diazotized fast color base or salt solution combines directly with the necessary chemical groups of these direct colors, thus insuring a fast-to-washing color. The chief fault lay in trying to use them as developed colors, which required the diazotizing of the directly dyed color and then developing—a total of three operations—and definitely disarranged the chemical construction of the color as compared to the simple direct dyeing and coupling operation used with fast color salts and diazotized bases.

For dyeing packages of cotton, certain procedures were observed in dyeing off-type direct and developed colors which possessed one or more amino and hydroxyl groups: Wet out cotton at 180-200° F. for 30 minutes with one per cent Nacconol NR or one per cent Alkonol W. Give a running cold wash until bath is down to 120° F. Enter 0.5 per cent Alkonol with dissolved color, raise bath to 200° F. and run 40 minutes; add salt slowly and run 30 minutes, drop bath, then give running cold wash until clear. For the developing bath use one per cent Diazopon A (acid-resistant penetrant), fast color salt or diazotized base. Run cold at 75-80° F. for 30 minutes. Give cold running wash until clear, then soap off at 180° F. for 20 minutes, using one per cent Nacconol or soap. Drop and give wash at 160° F. and finish off.

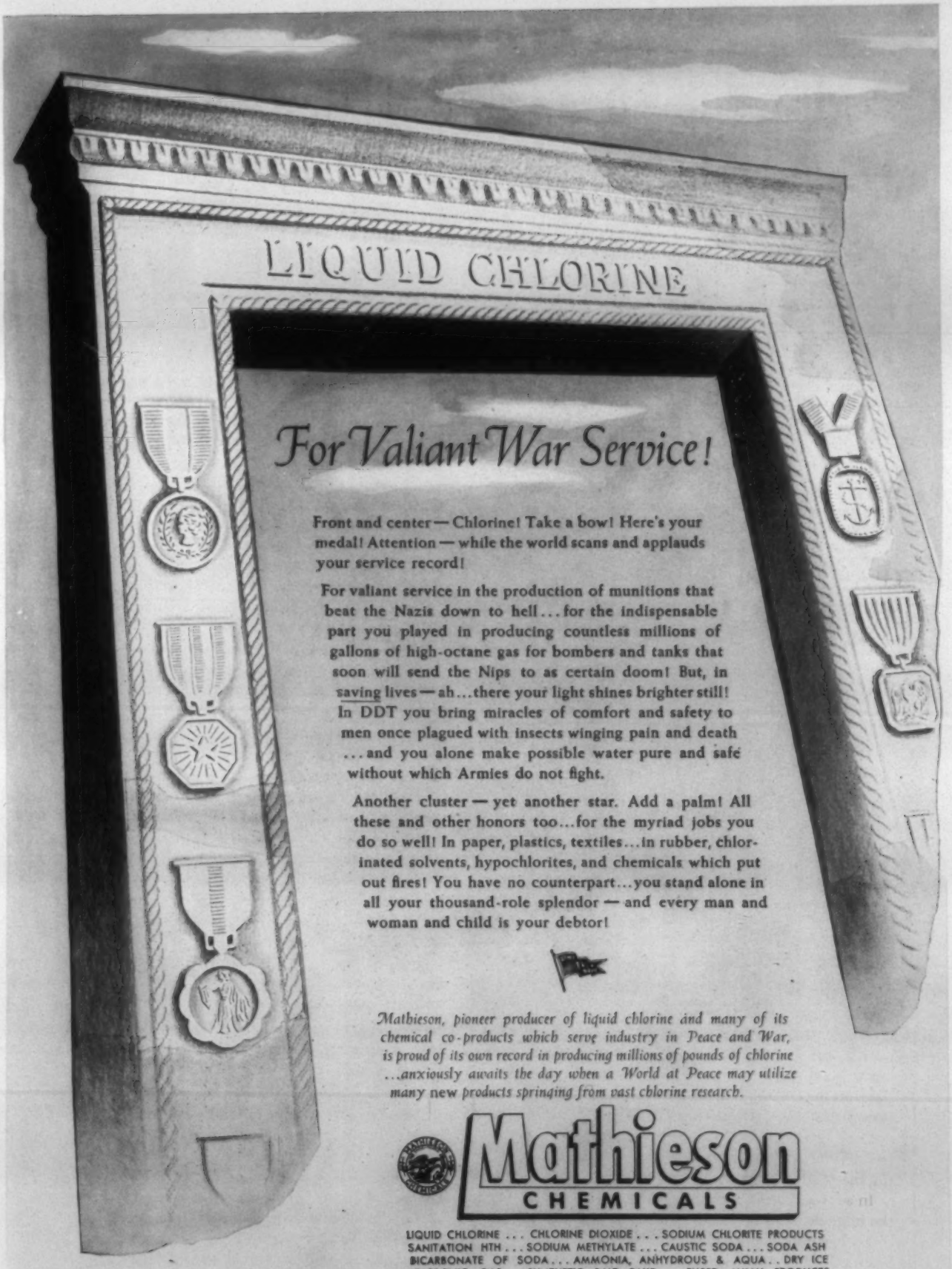
On spun rayon packages wet out 20 minutes at 160° F. with one per cent Nacconol. Drop and cool to 120° F. Strain in dissolved color and add two per cent Alkonol W. Raise bath to 175° F., run 40 minutes. Add salt slowly, run 30 minutes. Drop, then wash cold until clear. Run developing bath the same as with cotton and soap off at 180° F.

Restrictions on Dyestuffs and Textile Chemicals To Be Eased

Word of peace brought expectation to the textile dyeing and finishing industry that the War Production Board soon would revoke or revise most of the restrictions on the chemicals and dyestuffs it uses. The trade hoped that some schedules in the long list under M-300, the general chemicals order, would be discarded immediately, and quoted Washington sources as saying that many others would be revoked by Aug. 31.

In addition, ending of the war is expected to reduce the huge demand for laboratory equipment which was so far beyond the normal capacity of manufacturers of lab items. Early this month these manufacturers had backlogs of unfilled orders which would have required from six to eight months for delivery under wartime conditions.

From production on souvenir-for-tourist scale to mass output, the hooked rug craft in western North Carolina has now grown into an industry. The growth of the enterprise has been marked since the war in the Pacific began. Reduction of rug imports from China, Japan, Porto Rica and other countries have sent more of the mountain production into nationwide distribution channels. Some eight or ten rug distributors sponsor production under a system in which the distributor furnishes the dyed wool and collects the finished product through a "rug route."



For Valiant War Service!

Front and center — Chlorine! Take a bow! Here's your medal! Attention — while the world scans and applauds your service record!

For valiant service in the production of munitions that beat the Nazis down to hell... for the indispensable part you played in producing countless millions of gallons of high-octane gas for bombers and tanks that soon will send the Nips to as certain doom! But, in saving lives — ah...there your light shines brighter still! In DDT you bring miracles of comfort and safety to men once plagued with insects winging pain and death ...and you alone make possible water pure and safe without which Armies do not fight.

Another cluster — yet another star. Add a palm! All these and other honors too...for the myriad jobs you do so well! In paper, plastics, textiles...in rubber, chlorinated solvents, hypochlorites, and chemicals which put out fires! You have no counterpart...you stand alone in all your thousand-role splendor — and every man and woman and child is your debtor!

Mathieson, pioneer producer of liquid chlorine and many of its chemical co-products which serve industry in Peace and War, is proud of its own record in producing millions of pounds of chlorine ...anxiously awaits the day when a World at Peace may utilize many new products springing from vast chlorine research.

Mathieson
CHEMICALS

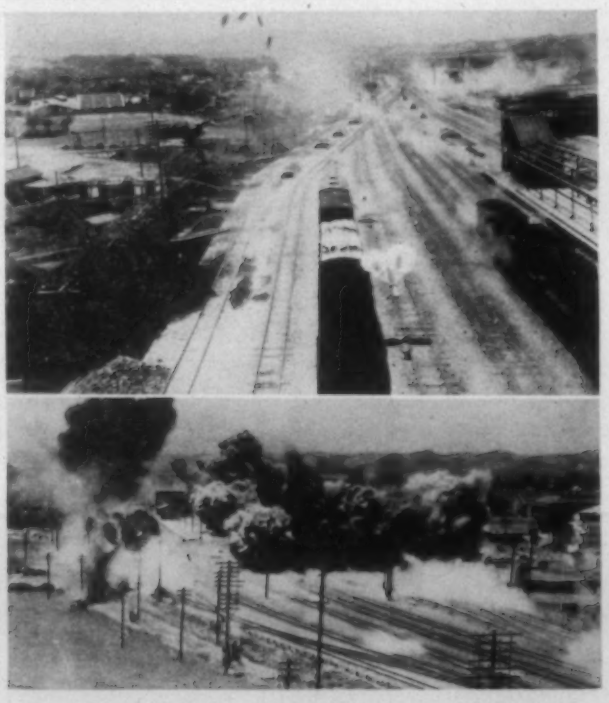
LIQUID CHLORINE . . . CHLORINE DIOXIDE . . . SODIUM CHLORITE PRODUCTS
SANITATION HTH . . . SODIUM METHYLATE . . . CAUSTIC SODA . . . SODA ASH
BICARBONATE OF SODA . . . AMMONIA, ANHYDROUS & AQUA . . DRY ICE
CARBONIC GAS . . . SYNTHETIC SALT CAKE . . . FUSED ALKALI PRODUCTS

THE ATOMIC BOMB—and the Firms Which Helped Develop It

By JAMES T. McADEN
Associate Editor

AS yet unconfirmed by American authorities is the Japanese claim that the two atomic bombs, which so suddenly convinced Nippon that further warfare was useless, were dropped by parachute. Whether or not United States textile mills had such a direct part in this most spectacular of all war operations by supplying the parachute fabric, various units of at least eight firms closely affiliated with the industry made contributions to atomic bomb development. In addition, thousands of textile workers in eastern Tennessee left their regular mill jobs to help produce the bomb at Clinton Engineer Works, Oak Ridge, Tenn.

The floor division of Armstrong Cork Co. at Lancaster, Pa., shipped more than 160,000 square yards of linoleum to factory sites at Richland, Wash., and Oak Ridge. Armstrong began work on the Army order, one of the largest it has ever received for a single project, in 1943.



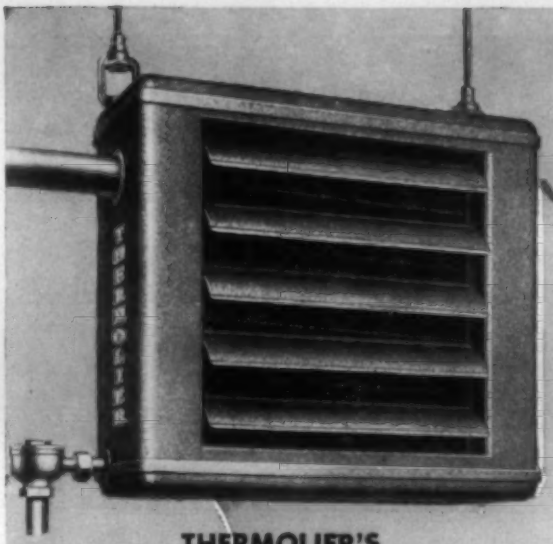
Radio Tokyo announced that the atom bombs which struck Hiroshima and Nagasaki were launched by parachute from B-29s, but this assertion is still unconfirmed by American military officials. Nevertheless, 'chutes made from fabric produced by American textile mills played a large part in the defeat of Japan. Top section of the illustration above shows para-fragmentation (or para-demolition) bombs as they were released on a parked train in Formosa's Chickunan railroad yards. Lower section shows the destruction which was wrought by the few low-flying B-25 Mitchells which showered the yards with parachute-borne bombs.—*U. S. Army Air Forces photos.*

Bigelow-Sanford Carpet Co. of Thompsonville, Conn., ordinarily thought of in terms of plush and comfort, produced essential pieces of equipment for the Oak Ridge plant without knowing it at the time. For security reasons the exact nature of Bigelow's contribution cannot be disclosed. Elliott I. Petersen, production vice-president who directed the work, does not know yet just where his company's work fits into the picture. If he and other Bigelow executives knew little about this phase of their war activities, employees of the company knew even less. As was to be expected, many wild guesses were made in private but no discussion took place in public. Specifications were described as "exacting," but deliveries were made as contracted. Shipments were made to "The Manhattan Project;" no one in the firm knew where or what this was. Although Bigelow employees have been kept in the dark about their efforts in atomic bomb development, they have known for some time that the company was turning out vast amounts of other ordnance parts as well as huge quantities of cotton duck and Army blankets. Since America entered the war Bigelow has become the largest single supplier or blankets and blanket cloth to the armed services.

Tennessee Eastman Corp. and Union Carbide & Carbon Corp. operated different production units at Oak Ridge. Both companies are important textile industry suppliers. Terrell Machine Co. of Charlotte, which produces bobbins and bobbin cleaning and handling equipment, delivered mysterious precision-tooled metal objects to "The Manhattan Project." Throughout the war's duration the Terrell organization co-operated in operation of the Charlotte War Products Pool, which handled sub-contracts for much military production.

Monsanto Chemical Co.'s principal contribution to the program was research, process development, plant design and subsequent production of some of the material. It also assumed responsibility for operation of a large part of the Oak Ridge project. Dr. Charles Allen Thomas, Monsanto vice-president and formerly director of the company's central research laboratories, headed a staff of scientists whose atomic energy activities were centered at Dayton, Ohio.

The Taylor Instrument Companies of Rochester, N. Y., played a major role—pertinent to its field—in working out atomic laboratory technique on a full-scale production basis. In 1943 the Rochester plant was inspected by a committee charged with locating industrial facilities throughout the nation sufficiently large to handle all ramifications of the huge project. On the basis of its complete facilities and large engineering staff Taylor was selected as prime contractor for instrumentation for the Kellex Corp. in that firm's work pertaining to "The Manhattan Project." Several large instrument manufacturers were asked to submit instrument designs to meet the extremely *(Continued on Page 46)*



THERMOLIERS *are back again!*

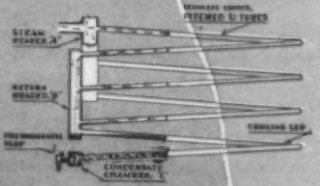
Now is the time to do something about your unsatisfactory heating equipment, before last winter's headaches are repeated.

Here's good news for you. GRINNELL is making THERMOLIERS again. They are the same efficient, engineered unit heaters that have been delivering more heat at less cost for thousands of satisfied customers for years.

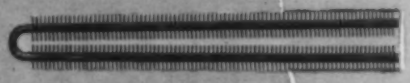
Talk over your heating problems with a Grinnell Engineer. He'll show you how Thermoliers distribute heat uniformly to every square foot of your buildings, improve employee morale and output and save up to 27% of still-scarce fuel.

Thermoliers' 12 points of superiority make them the logical choice in unit heaters. Ask for the new Grinnell Thermolier catalog 6-E. It gives all the details of construction, application, capacities and installation. Grinnell Company, Inc., Executive Offices, Providence 1, R. I. Branch offices in principal cities.

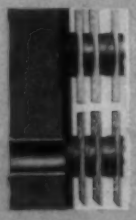
THERMOLIER'S SUPERIOR FEATURES



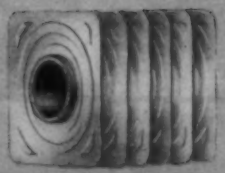
INTERNAL COOLING LEG assures continuous drainage of condensate and makes a simple thermostatic trap practical. It is equal to a run of more than 100 feet of ordinary exterior cooling leg piping.



BUILT-IN EXPANSION PROVISIONS. The "U" type tubes allow expansion and contraction, ease damaging strains.



LEAKPROOF TUBE-TO-HEADER CONSTRUCTION. Joints made by the expanding method assure safety and durability.



SUPERIOR HEATING ELEMENT. Square copper fins on strong seamless copper tubing provide 24% more radiating surface.

Other Points of Thermolier Superiority

Tube design minimizes dirt collection • built-in drainage • continuous rated capacity • heavy frame gives greater rigidity • motor and fan meet specific Thermolier requirements • simple piping connections • adjustable hangers facilitate erection • packed for easy installation.

GRINNELL

Thermolier Unit Heaters

FOR FULL VALUE FROM FUEL DOLLARS

DYEING AND FINISHING

Dyers and the Study of Dyeing

By GEORGE BROUN – Part Two

THE initial article of this series *(see* TEXTILE BULLETIN *for June 15, 1945)* dealt with the historical background of dyeing and its gradual change from that of great secrecy to that of modern technical training whereby a person can obtain the technical fundamentals of dyeing, and then through hard work can apply their technical ideas in learning to be a dyer and operating the different types of dyeing and finishing equipment. Brief recommendations were given for the essential laboratory equipment necessary for dyers running small or large dyehouses in the different types of textile dyeing work such as hosiery, underwear and knit goods, yarns, package and skeins, raw stock and piece goods of different types.

This article will take up the initial training desirable for familiarizing oneself with the different chemicals, dyeing assistants and different dyes needed for the various types of dyeing and finishing. A party desiring to obtain a sound fundamental background of the essential technical knowledge of value to a dyer should already possess a high school education or the equivalent. To obtain this elementary technical information the best sources for locating this information will be given in this article. Also, the study of equipment is very desirable in helping a newcomer obtain a better and fuller understanding of dyes, textile chemicals and dyeing assistants and their behavior in dyeing operations.

Fundamental Books

Anyone wanting to study textile dyeing and finishing who has not had the necessary technical training in a vocational high school or college should have at least a high school education or its equivalent. Through one of the various correspondence schools or colleges with textile schools, an ambitious person can obtain the necessary instruction books on elementary fundamentals of textile chemistry covering these subjects: Technology of Textile Fibers; Technology of Textile Chemicals; Textile Chemical and Dyeing Arithmetic.

On each of the subjects a short book of instructions, laboratory manual, should be obtained and first used slowly in simple laboratory tests. After a person has had sufficient time to familiarize himself with the action of alkalies, bleaching agents, wetting agents, etc., on the different fibers being processed in a plant such as cotton, viscose, bemberg and acetate rayons, wool, nylon, silk and casein fiber, he can then go on to practical plant dye tests.

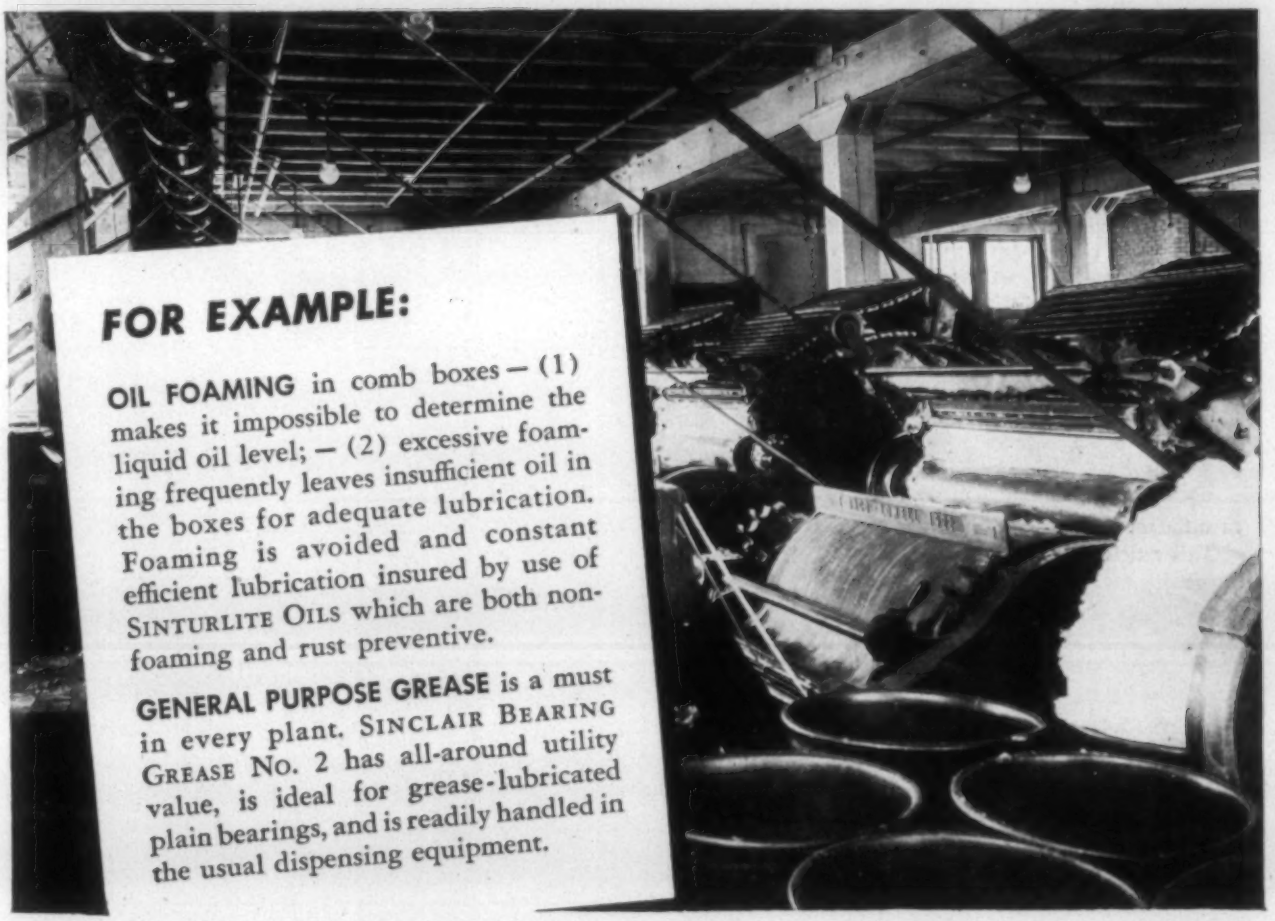
When testing the different dyes used in a plant, a beginner should make the tests listed below, then study the results of each test so as to familiarize himself as to the effect of the different chemicals and assistants on each color and fiber dyed.

(1) *Determining the effect of sodium chloride* (common salt) *on the exhaustion of direct colors on cottons*—For each direct dyestuff to be tested, enter two prepared (boiled out skeins) and two not boiled out in four separate baths with equal amount of dye solution, raise to boil and add salt to one each of the boiled out and not boiled out yarn. Then boil both for 30 minutes with the necessary turning in the dye beaker, remove, wash and dry. Note the effect of salt on the depth of shade and how the boiled out yarns dyed level and well penetrated while the non-boiled out show streaked and mottled. There are many direct colors that exhaust fairly well without salt added to the dyebath, but most of the direct colors require using common or Glauber's salt (sodium sulfate). These tests can be repeated on the boiled out cotton yarns by varying the amount of salt used. If a beginner will make careful notes he can learn the value of using level dyeing and slow exhausting colors as well as carefully regulating the amount of salt used from this one simple test.

(2) *Determining the effect of varying temperatures in the dyeing of direct colors on cotton*—Use boiled out yarn, entering it in prepared dyebath at 100° F., having four skeins and dyebaths for each color, raising No. 1 to 160° F., No. 2 to 180° F., No. 3 to 200° F., and No. 4 to a boil. Run 20 minutes, adding equal amounts of salt, and run 20 minutes after salting for each dye test; remove, wash and dry. Careful examination of these dyeings show that No. 4 gives a full shade and is usually level-dyed and well-penetrated, with No. 3 usually very similar to No. 4. No. 2 drops down on strength as well level-dyed effect as compared to Nos. 4 and 3. No. 1 is approximately 50 to 70 per cent the strength of No. 4 and tends to be mottled dyed and shows poor penetration. For practical work 200° F. is usually considered best in boiling and plant dyeing operation. In some colors you will find satisfactory exhaustion and dyeing at 160-180° F., and for this reason these colors usually find special use in dyeing operations requiring direct colors exhausting and leveling satisfactory at lower temperatures. Points of value to a beginning will be the making of careful notes on the behavior of different colors at 160 to 190° F., as this proves very helpful in the dyeing of yarns, packages and piece goods that require lower dyeing temperatures.

(3) *Determining the effect of short and long periods*

SINCLAIR has the ANSWERS to Your Lubrication Problems



FOR EXAMPLE:

OIL FOAMING in comb boxes — (1) makes it impossible to determine the liquid oil level; — (2) excessive foaming frequently leaves insufficient oil in the boxes for adequate lubrication. Foaming is avoided and constant efficient lubrication insured by use of SINTURLITE OILS which are both non-foaming and rust preventive.

GENERAL PURPOSE GREASE is a must in every plant. SINCLAIR BEARING GREASE No. 2 has all-around utility value, is ideal for grease-lubricated plain bearings, and is readily handled in the usual dispensing equipment.

PROPER LUBRICATION for all types of mill equipment is assured by Sinclair Textile Lubricants because they were specially developed through long research, practical service tests, and cooperation of machinery manufacturers. If your spinning room problems are excessive bolster wear, over-heating, and power loss there's a Sinclair Lily White Oil of correct viscosity to help eliminate these troubles.

* * *

Have you the Sinclair Textile Flow Chart, a helpful guide to efficient lubrication? It's free.

SINCLAIR TEXTILE LUBRICANTS

FOR FULL INFORMATION OR LUBRICATION COUNSEL WRITE SINCLAIR REFINING COMPANY, 630 FIFTH AVENUE, NEW YORK 20, N. Y.

when dyeing direct colors on cottons—Use four skeins and dye (at 200° F.) No. 1 ten minutes after salting, No. 2 20 minutes after salting, No. 3 40 minutes after salting and No. 4 80 minutes after salting. Careful observation shows that some colors will exhaust very rapidly and give approximately equal strength; most colors show equal on No. 2 and No. 3. No. 4 on many colors shows washed-out and weak appearance, although well penetrated. This weaker depth of shade on No. 4 is usually caused by the tendency of many direct colors to exhaust fully within 30 to 40 minutes at 200° F., but after that period some direct colors tend to come off of the cotton yarn and redissolve themselves into the dyebath. From this test a beginner can see the necessity of making careful notes as to colors. Then it is well to note those colors that tend to go weak after longer dyeing periods for when a dyer is making a color *addition* for a certain shade he may experience trouble if the colors used in the original dyebath possess the bad tendency of redissolving off the dyed goods if both is run beyond the usual 40 minutes after salt is added.

(4) *Determining the dyeing and resisting effect of direct colors on cottons in the presence of acetate rayons, wool, aralac and nylon*—For this initial test, a beginner should use only those fibers actually in use at his particular plant for illustration if acetate rayon and wool are being used then make a small tie-band of these yarns and attach to each of the cotton skeins. Enter cotton skeins, with the small tie-bands of other fibers to be tested, in prepared dyebaths. Raise No. 1 to 160° F., No. 2 to 180° F., No. 3 to 200° F.; run 20 minutes at these temperatures and then make salt addition and run for 40 minutes before washing and drying. Examination will show that direct colors which resist acetate rayon usually leave it very clean at 150 and 180° F., and with a faint to moderate stain at 200° F. Thorough notes should be made on colors and how they affect acetate rayon, since this is a widely used fiber. A temperature of 180° F. is preferable for obtaining the best resist effects. This also helps to preserve the original chemical condition of acetate rayon. Many direct colors used on wool and aralac give an almost equal depth of shade at 180 and 200° F., while at 160° these fibers are resisted fairly well on some colors. To resist wool and aralac a small amount of soda ash or soap is used at 160° F., or lower, but this is considered a bad practice.

THERE'S ONE IN EVERY MILL

—by WILMER C. WESTBROOK

Bad-News Bessie likes to spread 'the word' and never takes time to authenticate anything before broadcasting it. To her, the most idle rumor is fact—and she repeats it as such. Anything from any source is worth passing on, and she usually makes it more interesting with a few exaggerated embellishments. Her ability to ferret out news almost before it happens is uncanny. Bad news of any kind is her special delight; she tells it, without tact or tremor, to all who will listen.

All-Purpose Clear for Pigment Printing

A new, all-purpose printing clear which offers several important advantages over previous types has been announced recently by Aridye Corp. of Fair Lawn, N. J. An outstanding feature of this new product, known as Clear 6214, is that it permits plisse effects to be obtained with the regular line of Aridye pigment colors. The color value and fastness properties obtained are said to be equal or superior to those with older types of clears. Among other advantages cited for Clear 6214 are the following: (1) excellent stability during storage and on running; (2) excellent flowing properties, permitting better control of viscosity than was possible heretofore; (3) good stability to hydrosulfite employed in discharge printing; (4) good stability to acid, hence giving excellent results on naphtholated grounds; and (5) colorless and transparent, providing the full brilliancy of pigment colors.

Entirely different in chemical constitution from previous products, Clear 6214 is the result of over 12 months' work in the research and development laboratories of Aridye Corp. After being subjected to rigorous tests in the Aridye application laboratories, field trials were made in several printing plants. This new all-purpose clear is now offered to the trade to replace Clears A-767, C-521 and C-221.

Viscosa Mexicana S. A. has been formed in Mexico City jointly by Celanese Corp. of America and Mexican interests to produce and sell viscose rayon yarns in Mexico. Arrangements are reported to be underway for the purchase of land on which to erect a plant. Dr. Camille Dreyfus, president of Celanese Corp. of America, will hold the same position in the new company and board of directors representation will be divided equally between Mexican and American interests.

Corrosion resistant materials and equipment are presented in a pamphlet issued by U. S. Stoneware Co., Tallmadge Circle, Akron, Ohio. Identified by the company as Bulletin H, the publication treats of Tygon formulations, tanks and lining materials, Tygon flexible tubing, gasketing, paint and liquids.

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

BYNUM, N. C.—A one-story addition will be constructed soon by J. M. Odell Mfg. Co. The cost of building and new machinery will be more than $35,000.

BELMONT, N. C.—A state certificate of incorporation has been filed by Cornucopia Corp. to deal in fabrics and yarns, with capital stock of 2,500 shares. Stock totaling 1,000 shares has been subscribed by C. G. Wilson, W. M. Hall, W. T. Hall, Jr., and C. G. Wilson, Jr., all of Belmont.

JOHNSON CITY, TENN.—J. C. Cowan, Jr., vice-president of Burlington Mills Corp., has announced that the firm's Johnson City unit, Gloria Rayon Mills, will be expanded.

WEST, TEX.—The two plants of Brazos Valley Cotton Mills, at West and Waco, have been sold to H. Kahn and associates of New York City, according to W. L. Steele, who will relinquish the presidency Sept. 1. The 6,220-spindle, 214-loom plant in West produces ducks and osnaburgs, and the 3,556-spindle mill at Waco manufactures twine.

PORTERDALE, GA.—Installation of three new automatic spoolers and three high-speed slashers has been completed in the Osprey Mill of Bibb Mfg. Co. Other equipment additions include automatic monitor cleaners and a humidification system in the spinning department.

MARTINSVILLE, VA.—A major project to expand facilities for the production of nylon yarn at its Martinsville plant has been announced by E. I. du Pont de Nemours & Co. Approximately $10,000,000 in cost, the new construction and equipment will be designed to assure increased output of the fine yarns needed for hosiery and other textile uses. This expansion forms a part of Du Pont's post-war building program. The present plant at Martinsville began operations in November, 1941.

Safety Records Get Recognition

Three North Carolina textile plants are now officially eligible for certificates of safety achievement awarded by the United States Department of Labor as the result of accident reduction records during the first six months of this year. The Gastonia plant of Ranlo Mfg. Co. reduced accidents 100 per cent, Chatham Mfg. Co. at Elkin showed a reduction of 65.2 per cent, and Firestone Textiles, Inc., of Gastonia effected a drop of 41.1 per cent.

Two other Southern textile mills have received the Liberty Mutual Insurance Co. accident prevention flag for completing lengthy working periods without lost-time accidents. Judson Mills of Greenville, S. C., boasts a record of 2,000,000 accident-free man-hours, and Frank Ix & Sons, Inc., at Charlottesville, Va., has established a similar record of 1,250,000 hours.

SHELBY, N. C.—Another 25,000 square feet of floor space is planned by Cleveland Cloth Mills to provide room for 120 new looms, more rayon throwing equipment and additional preparatory machinery.

MONTICELLO, ARK.—Monticello Cotton Mills Co. has been purchased by Frank M. Swirles of Chicago and Terrel Spencer, who for the past 19 years has been treasurer and general manager of the company. The new owners will take over the 10,000-spindle, 233-loom plant Oct. 1.

MT. HOLLY, N. C.—A complete modernization and expansion program costing $250,000 is planned by officials of Globe Mills Co. Brick and steel construction will cost $100,000, while the remaining $150,000 will be spent on new machinery and equipment. Approximately 100 workers are now employed in the production of single and ply combed peeler yarns. Another 50 employees will be hired when the renovated plant is ready to spin synthetic and blended yarns some nine months from now.

ELKIN, N. C.—A donation of $1,000 and the right to use company property are recent contributions made by Chatham Mfg. Co. towards the campaign now underway for Elkin's Memorial Park.

GRANITEVILLE, S. C.—The 100th year of the Graniteville Co. is commemorated in the current issue of *Graniteville Bulletin*, which carries 36 pages covering all phases of the textile manufacturing organization's activities. General topics dealt with in the centennial issue include the company's history, work of its service departments, descriptions and pictures of the various mill units, the role of employees and plants during wartime, and the company's future. In all, the issue is an interesting sketch of one of the South's pioneer textile mills.

FRANKLIN, GA.—Seven truckloads of spinning machinery are being installed in a plant which will operate as a sub-unit of the Stark and Reid Mills of United States Rubber Co. at Hogansville, Ga. The 5,280 spindles will be tended by 40 persons, and yarn production will be delivered to Hogansvile for further processing.

GREENSBORO, N. C.—Four of the foreign manufacturing units of Burlington Mills Corp., which has headquarters in Greensboro, are now in operation and two others are under construction, according to officials of the firm. At Marianao, Cuba, Burlington Mills is operating Victoria Textiles, Inc., on rayon weaving, dyeing and finishing. In the Cuban capital Havana Hosiery Corp. is producing full-fashioned hosiery. Elsewhere in South America, a unit is being constructed at Medellin, Colombia, and another plant is being built at Cuernavaca, Mexico. In Australia, Burlington Mills of Australia, Ltd., has been producing blankets and uniform fabrics at the Sydney plant and other military goods at the Rutherford mill. Both Australian units soon will revert to civilian goods.

KNOXALL

ROLLER, SLASHER AND CLEARER CLOTH
SANFORIZING BLANKETS
SLASHER JACKETS
ENDLESS REVOLVING CLEARERS

EDWARD H. BEST & CO.

EST. 1888 BOSTON, MASS. INC. 1901
ATLANTA, GA. NEW YORK

W. C. HAMES
185 Pinecrest Ave., Decatur, Ga.
Dearborn 5974

H. W. CURTIS
735 W. Crescent Ave., Allendale, N. J.
Allendale 3521

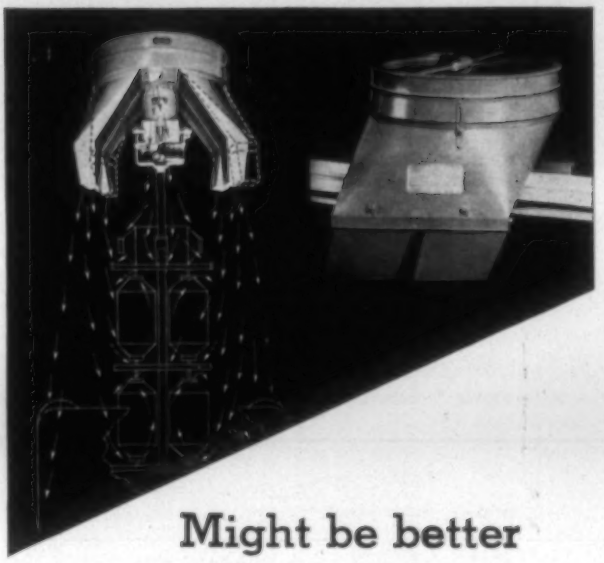
GREENVILLE, S. C.
RALPH GOSSETT—WILLIAM J. MOORE
15 Augusta Street, Telephone 150

CLINTON STARCHES

★★★ FOR ALL
TEXTILE USES

★ QUALITY
★ UNIFORMITY
★ SERVICE

CLINTON COMPANY
CLINTON, IOWA



Might be better to Clean by Hand

Rigged with ParksTurbo Traveling Cleaners, frames are blown off every three or four minutes.

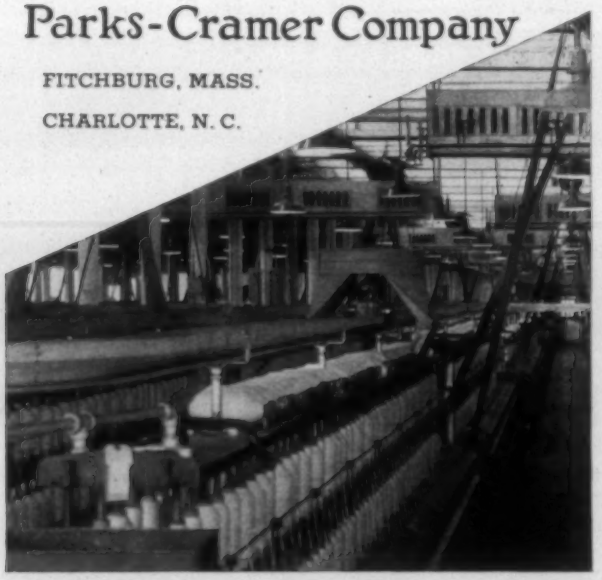
Lint and fly do not get a chance to be spun into the yarn. They are shooed away.

Hand cleaning, done as often or as regularly, might be better. But what spinner would want to fan a frame (not to mention five or six) fifteen or twenty times an hour? Or who would want her to?

ParksTurbo Traveling Cleaners take the drudgery out of spinners' work—and earn their keep besides.

Parks-Cramer Company

FITCHBURG, MASS.
CHARLOTTE, N. C.



textile bulletin

Published Semi-Monthly by

CLARK PUBLISHING COMPANY

P. O. Box 1225 — CHARLOTTE 1, N. C. — Telephone 3-5586

Offices and Plant: 218 West Morehead Street

David Clark - - - - - - President and Editor
Junius M. Smith - - Vice-President and Business Manager
James T. McAden - - - - - - Associate Editor
Maj. Ellis Royal (On leave in U. S. Army) - Associate Editor
Andrew Hewitt - - - - - - Assistant Editor
F. R. Carey - - - Vice-President and Eastern Manager
(P. O. Box 133 — Providence, R. I. — Telephone Williams 3957)

One year payable in advance - - - - - - $1.50
Other countries in Postal Union - - - - - - 3.00
Single copies - - - - - - - - - .10

Textile Bulletin is a member of the Audit Bureau of Circulations and the Associated Business Papers, Inc.

Textile Research Plans

Dr. Frederick Peirce, who has for many years been head of the textile research department of Shirley Institute in England, with a staff of over 50 persons, has arrived at Raleigh and will be in charge of the research program of the school of textiles at North Carolina State College.

Dr. Peirce, a native of Australia, has been with the Shirley Institute for 23 years and is regarded by many as ranking with E. R. Schwarz of M. I. T. as one of the top textile technologists in the world.

Dr. Peirce is probably more on the practical side than E. R. Schwarz, as he has specialized in the construction of fabrics.

He played a big part in designing and constructing waterproof and windbreaker and other fabrics for the British Army and because of their superiority and at the request of our Army Quartermaster Corps was sent to the United States in the summer of 1944 to make suggestions about our fabrics and later spent a month in Canada on a similar mission.

While in the United States he was contacted by Dean Malcolm E. Campbell of the school of textiles at North Carolina State College, who had previously known about him and his work. Arrangements were made for him to address a large group of North Carolina and Virginia textile manufacturers at a dinner at Greensboro, N. C.

Because of the nature of Dr. Peirce's mission to the United States, no publicity was given to that dinner, but after the textile manufacturers heard him it was decided that although it would necessitate the raising of additional funds, the North Carolina Textile Foundation, Inc., would back a program of textile research at the school of textiles at N. C. State College. The foundation assumed responsibility for the salary of Dr. Peirce.

It was difficult to secure the release of Dr. Peirce because not only were his services valued by the British Quartermaster Department but through the Shirley Institute he had the assignment of planning an entirely new set of fabrics, from towels to seat covers, for the Midland Railway of England.

His release was finally secured but even then there was the question of transportation and he had to come to the United States on a freighter. He has not yet been able to arrange transportation for his wife and two daughters.

Dr. Peirce is a quiet, unassuming man with a pleasing personality and a sincere desire to render service to the textile industry.

One of his first questions was whether or not he would be permitted to collaborate with the schools of textiles at Clemson College and Georgia Tech in any research work which they attempted and he was pleased when told that he would be free to give assistance to any school of textiles or any textile organization which requested his services or advice.

It seems that at the Shirley Institute, as is the custom in England, he was not permitted to divulge either the progress or results of research except through the officials of that organization.

The research program of the school of textiles at North Carolina State College will be upon a more practical basis than that which is being attempted by the Institute of Textile Technology at Charlottesville, Va., and instead of being isolated from textile manufacturers, there will be frequent contacts for suggestions and advice.

As our readers know, we have never been sold upon the plans of the Institute of Textile Technology nor do we expect it to ever justify the large sums which are being spent. Certainly it has reported nothing worthwhile up to the present date.

It would have had a much better chance had it been located at Greenville, S. C., where those engaged in research could have had contacts with textile manufacturers and the benefit of their advice and suggestions. The statement that it was located at Charlottesville, Va., because a large number of trains passed through there, is downright silly.

Textile manufacturers going to New York or returning South pass through Charlottesville at night, and the only two whom we have heard admit having seen Charlottesville by daylight include one who was caught in a railroad wreck and another who visited that part of Virginia by automobile.

There is a well-founded belief that the real reason for locating the Institute of Textile Technology at Charlottesville was that its director wished to reside in a university town; we do not think that the opportunity to render service to the textile industry should have been sacrificed for such a reason.

We wish the Institute of Textile Technology well and hope that it will do something worthwhile, but hold to the belief that instead of being isolated, it should have been located at Greenville, S. C., or some place where there would have been frequent contacts with textile manufacturers. New York would have been far better than Charlottesville.

Dr. Frederick Peirce of the school of textiles at North Carolina State College will keep constant contacts with textile manufacturers and it will be interesting to compare accomplishments of his department with those of the large staff which has been assembled at Charlottesville, Va.

1918 vs. 1945

The close of World War I came very suddenly and unexpectedly on Nov. 11, 1918.

Government orders upon the books of the mills were large but did not constitute nearly as large a proportion of their output as at the close of World War II.

There was a very large volume of civilian orders booked at high prices and against them high price cotton had been purchased.

Textile mill wages had during the war advanced out of proportion to the cost of living and there was a belief expressed by some that they might recede to pre-war levels.

Civilian buyers began to seek complaints against the quality of the goods and other excuses for cancelling their contracts and all government orders were cancelled.

Prospective purchasers, believing or expressing the belief that textile wages would decline, withheld their orders, and the mills, becoming desperate for business, began to compete with each other by accepting orders at lower and lower prices.

In our issue of Dec. 12, 1918, we said:

> The cotton manufacturer who permits his commission merchant to believe that he may soon be able to sell goods based upon pre-war wages, is doing an injury to the entire industry.
>
> Let the world become convinced that it will not be able to secure any cheaper goods and it will stock its shelves.
>
> Some time sooner or later, it will dawn upon people that the old scale of wages has gone never to return and that even though there may be some recessions, no great decline can be expcted.
>
> In fairness to labor it must be admitted that in days prior to the war they did not in many cases receive that remuneration to which they were justly entitled.
>
> The present scale has advanced out of proportion to the increased cost of living and there will probably be some slight adjustments but we can see no reason to expect a material decline in the near future.

In spite of the predictions we made on that date, we find ourselves saying on Jan. 18, 1919:

> The United States is today in the midst of a panic but it is a different kind of panic from that which we have ever faced before.
>
> It is not a financial panic, for the banks are bulging with money and the public has plenty of money in its pocket and yet the wholesale buyers of commodities such as cotton goods, shoes, etc., are not buying because they are afraid that if they should buy, they will later find themselves stocked with goods above the market and be able to compete with those merchants who refused to buy today.

Buyers of goods of all kinds were making a drive for lower prices and there was a sharp drop in prices for about six months, or until the accumulated buying power of the public began to be felt and forced buyers to bid for goods in order to supply their customers.

We are now facing a similar situation in a much less serious form, but there will undoubtedly be a great effort upon the part of civilian buyers to depress the prices of textile goods.

Many things may justly be said against the establishment of a minimum wage and in the long run it will probably be found that in normal times textile goods cannot be manufactured and sold upon a 55-cent minimum wage scale, but at this moment the fact that there is a minimum wage may have a stabilizing influence upon the prices of textile goods.

Immediately after World War I, and in many periods of depression, pressure to accept lower prices for textile goods was always accompanied by the suggestion that the reduction in price could be equalized by reducing wages of workers.

The financial situation of textile mills and the buying power of the public is much stronger than after World War I, and while there will be buyers exerting pressure for lower prices for textile goods, it will be much easier to resist.

We doubt very much that civilian orders will, for very long, be great enough to absorb the output of textile mills upon a three-shift basis and it may be wise for some mills to abandon the third shift.

Many mills recognize the fact that a partly filled third shift has not profited them greatly and only continued it as a contribution to the war effort.

We can see no reason in the near future for lower prices for textiles than now exist, and it will be unfortunate if any mills yield in the slightest degree to the pressure of buyers.

Army Has "Hot Potatoes"

Top-ranking government officials who are concerned with policies have suddenly found that the Japanese surrender left them with some "hot potatoes" in their hands. Three of these of particular interest to the textile and allied industries are:

(1) Disposition of Mary Leila Cotton Mill, Inc., at Greensboro, Ga., and Gaffney (S. C.) Mfg. Co., which were seized by the Army upon presidential order for non-compliance with War Labor Board directives.

(2) The cases of the three sportswear manufacturers from whom William H. Davis, director of the Office of Economic Stabilization, ordered J. A. Krug, chairman of the War Production Board, to withdraw priorities for non-compliance with WLB orders. Although these orders were issued some time ago, Mr. Krug has never complied with them.

(3) The units of Montgomery Ward & Co. already in possession of the Army and those whose seizure is still pending in OES.

The Army has asked President Truman to rule on its future procedure in the two cotton mill cases and the Montgomery Ward affair. The President, in turn, has asked John W. Snyder, director of the Office of War Mobilization and Reconversion, to work out a solution. Mr. Snyder, at last reports, had called conferences which include representatives of the Justice Department, OES, the Army, the Navy, WPB, WLB, etc.

The CIO union at Gaffney, S. C., has petitioned President Truman to continue the Army operation of the Gaffney Mfg. Co. which was begun under orders of the National War Labor Board as a means of forcing the company to act as a collection agency for the union and to discharge employees who refused to join the union.

In other words, they are advocating military rule for industries in time of peace, something which even exceeds the Nazi rule of Germany against which we have just completed a successful war.

After many years of protesting the use of the Army or National Guard to enforce injunctions issued by Federal judges against violence during strikes, the CIO now advocates the use of the Army to maintain the check-off and the closed shop.

Promotions, Resignations, Elections, Transfers, Appointments, Honors, Notes on Men in Uniform, Civic and Associational Activity

PERSONAL NEWS

R. E. L. Holt is now representing Rice Dobby Chain Co. of Millbury, Mass., in the Greensboro, N. C., area.

George Friedlander, manager of the commission department, and Ernest Rohr, general manager of all eight textile mills of the Duplan Corp., have been elected vice-presidents of the corporation. With Duplan 26 years, Mr. Friedlander in 1925 was transferred to New York as manager of the commission department and was elected a director in 1932. Mr. Rohr, a native of Switzerland, has been associated with Duplan since boyhood, and in 1932 was made a director and general manager of all production.

Shown at left below is Dr. William P. Utermöhlen, who was recently appointed to the Institute of Textile Technology staff at Charlottesville, Va. His professional career has been spent with Tennessee Eastman Corp. and its affiliates. His foremost specialty is the synthesis and poloymerization of vinyl compounds, and he is currently engaged in organic chemical research. Leo

W. Rainard, right, has joined the institute staff for work on high polymers. He has been engaged in research and development work since graduation from Massachusetts Institute of Technology in 1940.

Maurice C. Taylor, formerly manager of research at the Niagara Falls laboratories of Mathieson Alkali Works, has been appointed resident director of research and development. J. Douglas MacMahon, formerly assistant manager of the sales development department, has been named assistant to the technical director. C. N. Richardson, superintendent of pilot operations, was appointed manager of research engineering, and C. Gerald Day, a superintendent in the development department, will fill the position of plant liaison engineer. Both Mr. Taylor and Mr. MacMahon will report to Dr. G. P. Vincent, recently named technical director. Reorganization of the research department is in line with the company's policy of continued aggressive research and co-ordination of sales development and plant operations with research, according to George W. Dolan, president.

G. A. Berkstresser, Jr., vice-president of Roanoke Mills Co. at Roanoke Rapids, N. C., has been named Southern area chairman for the Philadelphia Textile Institute Foundation's campaign for a fund of $2,000,000.

J. Bracken Johnson, left, formerly research chemist for the New Bedford (Mass.) Woolen Co., is now associated with Virginia Smelting Co., producer of textile chemicals at West Norfolk, Va. He will engage in technical sales and development among the textile mills of the South.

WITH THE MILITARY — Elmer C. Bertolet has resigned as senior technologist in the textile section of the Jeffersonville (Ind.) Quartermaster Depot's engineering division. . . . Col. Campbell D. Garrett, for more than three years clothing branch chief for the procurement division of the Office of the Quartermaster General Washington, is reported to be joining J. P. Stevens & Co. in New York City following his release from active Army duty. . . . Capt. Ralph R. Powell, a former production manager for Cannon Mills Co. at Concord, N. C., is reported to be aiding in the clean-up of Japanese resistance in the Philippines. He has been overseas with the Army for 18 months.

Henry F. Dever has been elected president of Brown Instrument Co. at Minneapolis, Minn., succeeding Charles B. Sweatt.

W. O. Ruffin, formerly superintendent of Bama Cotton Mills at Enterprise, Ala., is now superintendent of Moultrie (Ga.) Cotton Mills. C. A. Lominack, for the past ten years with Bama Cotton Mills, has joined Moultrie Cotton Mills.

Pictured at left is Clifford W. Worthen, who recently joined Sandoz Chemical Works, Inc., as technical manager of that organization's Charlotte office. His textile career began in 1922 following graduation from Lowell textile institute. It includes 20 years as dyeing and finishing superintendent of textile plants in New York State, and more recently as chemist and technical director for Beaunit Mills in New York City.

John A. Aycock has resigned as plant engineer for Rock Hill (S. C.) Printing & Finishing Co. to become plant maintenance engineer for the plastic division of Tennessee Eastman Corp. at Kingsport, Tenn.

J. Warren Roberts has been appointed branch manager of the Allis-Chalmers Mfg. Co. office at Chattanooga, Tenn. Prior to joining the Allis-Chalmers Atlanta district office in 1941, Mr. Roberts was employed by the Nashville Railway and Light Co., Tennessee Electric Power Co., and Allied Engineers, Inc.

A. G. Bussmann, vice-president in charge of sales for Wickwire Spencer Steel Co. at New York City, has been elected a vice-president of the subsidiary Wickwire Spencer Metallurgical Corp. He has been associated with Wickwire Spencer since 1930 in various sales and administrative capacities.

Pictured at left below is John E. Bassill, president of Tubize Rayon Corp., who was honored recently for having completed 25 years with the organization. E. R. Van

Vliet, the firm's new executive vice-president who is shown at right, also celebrated his 25th year with Tubize.

Kenneth E. Bell, technical director of the research laboratories of the A. C. Lawrence Leather Co., Peabody, Mass., has been elected a vice-president of the company.

Royal A. Stone, assistant engineer at the Amcelle Plant of Celanese Corp. of America, Cumberland, Md., has been given a temporary assignment as assistant to the company's chief engineer in New York City.

R. W. Faries has resigned as overseer of carding at the Arcade Cotton Mills, Rock Hill, S. C., to become superintendent of Hudson Cotton Mfg. Co. and Caldwell Cotton Mills of Hudson, N. C.

Harvie L. Sykes, Jr., an illumination engineer for the Jersey Central Power & Light Co. since 1940, has joined the lamp division of Westinghouse Mfg. Co. as dis-

trict engineer, according to announcement by the company. Mr. Sykes will supervise lamp engineering contacts with industries in Maryland, Virginia, West Virginia, northern Kentucky, northern North Carolina, northern Tennessee and adjacent states.

Harry Horrocks has been named manager of the yarn division of American Thread Co. He was formerly associated with Franklin Process Co.

Ernest C. Geier, president of Duplan Corp., has received a diamond service pin recognizing his 35 years with that organization.

George H. Lanier, president of West Point (Ga.) Mfg. Co., has been elected president of the Chattahoochee Area Council, Boy Scouts of America.

Kenneth B. Cook, at one time technical superintendent of Winnsboro (S. C.) Mills, has recently been made vice-president and general manager of Crown Mills at Pawtucket, R. I.

Russell C. Gebert has been promoted from secretary to vice-president of Lees-Cochrane Co., which operates a plant at Glasgow, Va. F. Edward Malmberg has succeeded Mr. Gebert as secretary of the company.

Raymond E. Olson was appointed recently to the position of general sales manager of Taylor Instrument Co. of Rochester, N. Y. Other recent appointments in the Taylor Co. include that of Frank S. Ward to industrial sales manager; Ralph E. Clarridge to sales engineering manager; and W. Maben Griffith to commercial sales manager.

Fred E. Harrell, chief engineer for the past two years for Reliance Electric & Engineering Co. of Cleveland, Ohio, has been appointed general works manager, succeeding S. B. Taylor. William R. Hough, product development engineer, has been named chief engineer, succeeding Mr. Harrell.

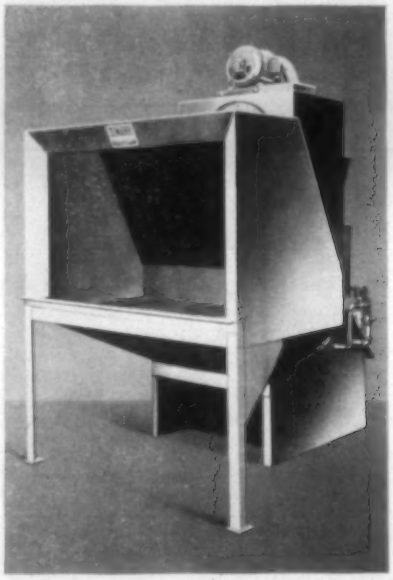
Paul C. Jones has been named field technical manager of B. F. Goodrich Chemical Co., the company has announced. Sam L. Brous has been appointed sales manager of thermo-setting resins, for which a new division of activity for its sale and promotion has been established by Goodrich.

Another Aridye Booklet Issued

Dyeing and Printing High-Tenacity Ralons is the title of No. 4 of a series of booklets on "Aridye Pigment Colors for the Fabrics of Tomorrow." This booklet issued by Aridye Corp., Fair Lawn, N. J., describes the methods which have been developed for applying resinbonded pigment colors to high-tenacity rayon fabrics for shirts, sports clothes, rainwear, football uniforms, toweling, draperies and other applications. The first three booklets of the series outlined the dyeing and printing of fiberglas, nylon and spun rayons.

Metallizing Engineering Announces New Line

Ordinary spray booths designed for paint and similar materials do not solve all problems created by



strong blasts of air and metal from metallizing guns. These difficulties can be overcome with metallizing spray booths and dust collecting equipment. Designed, engineered and built for handling sprayed metal dust, a complete line has just been announced by the Metallizing Engineering Co. of Long Island City, N. Y. The line includes spray booths for exhausting to present exhaust systems, to the atmosphere or into a Metco wet collector. Featured in the line is a lathe exhaust unit which is mounted directly on the lathe carriage and moves with it. Also featured are wet collectors and water wash spray booths which gather metal particles in a sludge sump where valuable dust may be reclaimed for salvage. The spray booth (as illustrated) is described in Metco's Bulletin 43A, copies of which are available from the company.

South Bend Develops New Nine-Inch Lathe

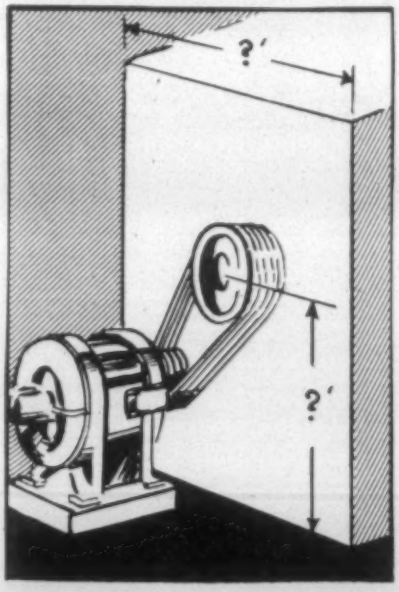
Latest addition to the South Bend Lathe Work's line is a V-belt drive nine-inch precision bench lathe which is illustrated and described for the first time in Catalog 9-G, just released. Made especially for those

who prefer the several advantages of the V-belt drive, this bench lathe features four-step, V-belt cone pulleys which, with the back gears, provide either eight or 16 spindle speeds ranging from 46 to 1176 r. p. m. It gear or plain change gear equipment for a wide range of thread cutting and power longitudinal feeds. Two of the models incorporate power cross-feeds.

This lathe is described as ideal for precision toolroom or production work, and for general use in machine, laboratory, and repair shops for machining metals, plastics, compositions, and other machinable materials. Complete, detailed information can be obtained by writing to the manufacturer at 376 E. Madison St., South Bend 22, Ind.

Allis-Chalmers Offers Installation Service

Allis-Chalmers Mfg. Co. now offers a solution to the problem purchasers of motors and wide-range V-belt drives for textile spinning frames encounter in fitting such equipment into desired position due to overlapping on floor space. To avoid this difficulty, the company



now has its field engineers send in information on height of cylinder shaft from floor and width of frame on which drive is to be employed (see illustration), along with the purchase order. An explanatory layout sketch giving proper diminsions is then prepared at the company's Milwaukee, Wis., headquarters and sent to the customer. This cost-free service is expected to save much time and avoid many difficulties.

Oil Company Planning Chemicals Manufacture

A chemical products department has been organized by the Standard Oil Co. of Indiana for the purpose of exploring the market for petroleum chemicals, working with research and manufacturing departments in developing and producing marketable derivatives, and managing sales and distribution. The new department will operate under the general direction of Bruce K. Brown, vice-president in charge of development, with William B. Plummer as manager. Howard R. Peterson will be in charge of sales development. Common chemicals such as acetic acid can be made from petroleum sources, says the company. Petroleum chemicals are used as softeners or placticizers for many synthetic resins and plastics in coating materials, and emulsifiers for various materials.

Classified Department

Southern Standard Mill Supply Co.

NEW, REBUILT and USED TEXTILE MACHINERY and SUPPLIES

512 W. Fourth Street
Charlotte, N. C.
Phone 3-8841

1064-90 Main St., Pawtucket, R. I.

N. Y. Office: 1022 Empire State Bldg.

C. E. LUTTRELL & COMPANY

Textile Machinery and Supplies

GREENVILLE, SOUTH CAROLINA
"Textile Center of the South"

- If you want a new job, if you are seeking someone to fill a position, the classified advertising department of Textile Bulletin is ready to help. The classified section is read by both employees and employers.

- Firms having textile mill equipment for sale also find Textile Bulletin classified advertisements valuable in establishing business contacts.

PAUL B. EATON
Patent Attorney

1208 Johnston Bldg., Charlotte, N. C.
514 Munsey Bldg., Washington, D. C.

Former Member Examining Corps
U. S. Patent Office

LET US OVERCOME

the Rust, Corrosion, Congestion and Fungi problems in your Air and Humidifying Systems.

ALLADDIN LABORATORIES, INC.
63 William Street New York, N. Y.

North and South Carolina Representative:
Joe W. Baldwin.

WANTED

Experienced Card Room Overseer for cotton yarn plant located in North Carolina.

Write "L. T.,"
care Textile Bulletin.

WANTED

Foreman for second shift carding and spinning; steady position and good salary for reliable man.

Address "C. F.,"
care Textile Bulletin.

MEN WANTED

to rebuild picking and opening equipment. Also men to run lathes in Machine Shop.

Apply

TROY WHITEHEAD MACHINERY CO.,
Charlotte, N. C.

WANT TO BUY

20 C. & K Looms, 68" between Swords, 25 Harness, 4 x 1 Box. Must be in good mechanical condition.

Write C. C.,
care Textile Bulletin.

WE ARE AGENTS

For These Lines of Textile Specialties

"HERON" and Super-Superior Check Straps.
"GBC" Sheepskins.
NEUMANN Calfskins.
NOONE'S Roller, Slasher and Clearer Cloths.
"GBC" Special Roller Cloths.
HOLT'S Roller Glue.
"GBC" Belt Cement
BILTRITE Canvas Lug Straps.
DAYTON "Thorobred" Loom Supplies.
DAYTON V-Belts and Pulleys.

GREENVILLE BELTING CO.

Manufacturers of Leather Belting

Day 2218 — Phones — Nite 3916

FOR SALE OR LEASE

Business property in Hamlet, N. C. Sixteen acres of land with building suitable for knitting mill or other manufacturing. For further information write or call

W. M. ELLIOTT
Salisbury, N. C.

WANTED

Superintendent for yarn mill located in North Carolina.

Write "K-M,"
care Textile Bulletin.

POSITION WANTED as Spinning Room Overseer. 30 years' experience in spinning room and 15 years as overseer. Desire position either in North or South Carolina. Best of references furnished. Write "A. B.," care Textile Bulletin.

MILL ENGINEERING—Registered Professional Engineer, formerly with Robert & Co., wants job making mill construction plans; fee or salary basis. Write "Box S-D," care Textile Bulletin.

WANTED—Position as Cotton Buyer, Grader and Stapler. I am married, have one child; draft status, ex-service man. Have two years' experience and can furnish satisfactory reference as to ability, character, etc. Willing to start for reasonable salary. All correspondence confidential. Address "W. R. N.," Box 58, Calhoun, Ga.

WANTED—Position as Overseer of Weaving. Young man now employed as Overseer Weaving desires to make change; experienced on broad and narrow looms. Not interested in temporary job. Best of references. Address "O. O. W.," care Textile Bulletin.

FIRST-CLASS ROLLER COVERER wants to make change. Has 20 years' experience; married; sober; good references. Now have charge of Mill's Roller Shop. Write "Roller," care Textile Bulletin.

POSITION WANTED as Superintendent of medium size mill or overseer of large weave room. Also experienced cotton classer. A-1 references. Address L. W. D., care Textile Bulletin.

POSITION WANTED as head loom fixer or loom overhauler. Long experience. Address "Overhauler," care Textile Bulletin.

WANTED—Position as superintendent, carder or spinner. Is your quality poor and strength weak, cost up? My services are available. Experienced on all staple cotton, carded and combed, plain and fancy weaves. Day work only. References and interview. Address "Box 307," care Textile Bulletin.

Index to Advertisers

Some Contributors to the Atomic Bomb

(Continued from Page 30) close process tolerances; Taylor's designs were selected. This required a heavy tooling program, the designing and construction of highly-specialized testing and calibrating equipment. Intense effort over a period of many months was applied to the project because of its unusual urgency. Not only were many Taylor technicians devoted to the production of a huge quantity of these vital control instruments, but several were assigned to the project proper.

The Role of Du Pont

By no means to be left unmentioned is the role of E. I. du Pont de Nemours & Co., best described in excerpts from a letter to company stockholders by W. S. Carpenter, Jr., president: "Du Pont's connection with this work began in the fall of 1942. At that time the War Department, represented by Maj.-Gen. Leslie R. Groves, asked the company to undertake a phase of this project involving the engineering, designing, construction and operation of a large plant. He explained that Du Pont's general work in chemistry, and especially its experience in developing new processes, made it the organization best qualified tto undertake this work.

"Accordingly, after some technical conferences, General Groves met with me, stating that the project was of utmost importance in the war effort; that it was so considered by the President of the United States, the Secretary of War, and General Marshall; that it was recognized that under normal circumstances the information available would be considered insufficient to proceed even with preliminary designs; but because of the importance to the safety of the nation, the design, construction, and operation must be begun at the earliest possible moment, recognizing fully the chances of failure and the unknown hazards which were involved in the operation of the plant.

"This was repeated at a meeting with our executive committee, where reluctance to undertake the task was expressed, based on two reasons: first, that the company was already so heavily burdened with war work, undertaken at the urgent request of the government, that it was difficult to see how a task of this magnitude could be assumed without badly overloading the company's personnel; and second, that Du Pont's exploratory work had in the past been confined mainly to the field of chemistry, rather than the field of nuclear physics into which this project would take it.

"However, in the light of the extreme importance and urgency of the work, as evidenced by General Groves' statements that the first nation to solve this problem could force a victorious end to hostilities merely by its military use, and that available evidence strongly suggested that the enemies of the United States in the present war were seeking to solve the problem, Du Pont stated that if in the opinion of the government its assistance was needed, it could not refuse to attempt the work. Your company, therefore, agreed to undertake the task, provided the government accepted two conditions. The first was that there be no profit for Du Pont in the project. The second was that any patent rights developing out of the work should become the property, not of Du Pont, but of the United States Government. In return for these unusual conditions, Du Pont requested that in view of the unknown field into which it was being asked to embark, and in view of the wholly unpredictable hazards involved, the government provide equally unusual protec-

tion against all costs, expenses, claims and losses sustained by Du Pont.

"The contract between the government and Du Pont covering this project established a fixed fee of one dollar. The government agreed to pay all costs of the work by direct reimbursement, or through allowances provided by the contract to cover administrative and general expenses allocated to the work in accordance with normal Du Pont accounting practices, as determined by audit by certified public accountants; and to protect Du Pont as requested. Under the terms of the contract, any portion of these allowances not actually expended by Du Pont will at the conclusion of the work be returned to the United States Government. The contract also provided that no patent rights would accrue to the company. Du Pont felt that the importance of the field was such that all patents should be government-controlled.

"The specific responsibilities assumed by the company were to engineer, design and construct a small-scale semi-works at the Clinton Engineer Works in Tennessee, and to engineer, design, construct and operate a large-scale plant at the Hanford Engineer Works in Washington. In carrying on this work, Du Pont was confronted with many new and unusual problems. The cost has been approximately $35,000,000. It is with a deep sense of gratitude to all those Du Pont employees who worked on the project, not only at Hanford but in other company locations from which assistance was supplied, that I am able to report that the carrying out of this undertaking has been thoroughly satisfactory to the government.

"It seems to me that in this great project we have played a part consistent with the company's traditional role in American industry. With the able and whole-hearted support of General Groves, through whom the powerful resources of the government were made available; with the co-operative effort of thousands of men and women in our own operations, in the ranks of other units of industry and the universities, an effective contribution to the war effort has been made."

Interlake Corp. Absorbs Resins Plant

Assets of the Makalot Corp. of Boston, Mass., manufacturer of thermosetting resins and other products, have been purchased by Interlake Chemical Corp. of Cleveland, Ohio, and Great Lakes Steel Corp. of Detroit, Mich. The deal involved the Makalot plant equipment, processes and trade name. The Makalot plant will become part of the Interlake Chemical Corp. plastics division.

OBITUARY

Robert Hill Freeman, 52, former president of Newnan (Ga.) Cotton Mills, died recently in New York City. He became president of the textile organization in 1931 and retired in 1939 because of illness. He is survived by his mother and two sisters.

J. David Woodside, one of the founders of Woodside Cotton Mills Co. at Greenville, S. C., died recently at his home in Biltmore Forest, N. C. He had been ill a year. He is survived by his wife and two brothers.

Horace Burrough, III, 49, assistant general manager of sales for the Merrimac Division of Monsanto Chemical Co., died Aug. 8 at his home in Swampscott, Mass. He is survived by his wife and one daughter.

John P. McGraw, 65, foreman of weaving for Cutter Mfg. Co. at Rock Hill, died last March 2. He is survived by his wife, three sons and two daughters.

Walter D. Chase, 69, for many years sales manager for the Martex Towels Division of Wellington Sears Co. in New York City, died last month after an illness of several years. He had been in semi-retirement for the past three years.

C. F. Springer, 71, superintendent of Crown Cotton Mills at Dalton, Ga., died recently of a heart attack. He had been associated with Crown Cotton Mills 50 years.

Capt. Arthur E. Huff, pre-war research chemist for Monsanto Chemical Co. at St. Louis, Mo., was killed in the Pacific last December, according to word from the War Department. He is survived by his wife and young daughter.

Mrs. Sarah Cole Curtis, 47, chairman of the board of directors of Columbia Mfg. Co. at Ramseur, N. C., died last month in a Greensboro, N. C., hospital. She had been seriously ill several weeks.

William F. Howard, 63, superintendent for Pacific Mills at Lyman, S. C., since 1923, died Aug. 3 of a sudden illness. Prior to his association with Pacific Mills he had spent ten years as superintendent for Aragon-Baldwin Cotton Mills at Whitmire, S. C. He is survived by his wife, one daughter, two sons, one sister, three brothers and two grandchildren.

Richard Von Oesen, president of Richards Chemical Works, Jersey City, N. J., and of Richards Chemical Co., Ltd., St. Johns, Quebec, Canada, died recently at his home at Rockville Center, Long Island, N. Y. He was one of the organizers of Onyx Oil & Chemical Co., Jersey City, founded 35 years ago.

Dr. Richard N. Mulliken, 57, control manager of the organic chemicals department of E. I. du Pont de Nemours & Co., died of a cerebral hemorrhage Aug. 6. He had been associated with the Du Pont Co. since 1917. He is survived by his wife, a son and two daughters.

Special Label To Identify Lanaset

Wool garments that have been treated with Lanaset resin for shrinkage and felting control will be identified by a novel label, the textile resin department of the American Cyanamid Co. has announced. A unique characteristic of the new Lanaset label will be the swatch of Lanaset-processed fabric which will be attached. This swatch, part of

Illustrated is a label typical of the kind which is now being attached to every woolen article treated with American Cyanamid's Lanaset resin, which imparts resistance to shrinkage.

the test run of the material of the garment, will have been washed five times enabling the customer to see and feel evidence of the effectiveness of the treatment with Lanaset.

On the label (shown in accompanying illustration) will also be a guarantee that the Lanaset-processed fabric in the garment will not shrink more than five per cent when hand washed by the recommended method. As the process is permanent, there is no limit on the number of washings. The Lanaset label is issued only for use with garments made of woolen fabric which has been carefully tested for shrinkage and felting resistance.

New Whitin Construction Is Authorized

Authorization for construction of a $480,000 building in Charlotte by the Whitin Machine Works was announced Aug. 11 by Harry G. Thornton, regional director of the War Production Board in Atlanta. Construction plans of Whitin Machine Works provide for a one-story machine shop and two-story office building on Wilkinson Boulevard.

Cotton Goods Market

Termination of contracts amounting to approximately 275,000,000 yards in the direct Army Quartermaster Corps procurement of broad woven fabrics, including duck, was announced Aug. 15 by the War Production Board.

Most drastic cuts were in cotton duck and webbing, requirements of which have been reduced over 90 per cent. Other cotton broad woven fabrics will be cut back approximately 80 per cent during the third and fourth quarters.

The reduction affects Army cotton cloth contracts until Dec. 31, and includes approximately 100 per cent contract terminations in some types of uniform and shirting fabrics.

Termination of contracts on staple cotton fabrics such as 80-squares and 64x56 print cloth, drills, coarse and medium sheetings and duck, will immediately relieve the short civilian supply of these items.

The yardage cutbacks are based on preliminary figures submitted to the WPB textile, clothing and leather bureau by Army authorities and include complete contract terminations on cotton oxford cloth: poplin, marquisette, Albert twill, narrow sheetings, high slay print cloths, herringbone twill and canvas padding.

Most of New York's Worth Street selling houses felt that the holidays following the announcement of Japan's surrender would give them time to see what was ahead for the trade, and also give government bureaus an opportunity to work out their peacetime programs.

Some sheeting and osnaburg mills have sold ahead through the first quarter of 1946, with some print cloth houses extending themselves to the end of this year, it is reported in the gray goods market. This forward trend became more pronounced when the news of the Japanese surrender offer became known. A large percentage of the goods sold ahead in the nammer were reported to be going to bag manufacturers.

The market is optimistic concerning the immediate future. The automobile industry, already very active in the market, is expected to increase its buying efforts greatly in order to obtain the fabrics necessarily complementary to stepped-up car manufacture. Termination of war contracts is not feared particularly, one source pointing out that the dislocation period will not be too lengthy.

The statement by the Office of War Mobilization and Reconversion listing the extent of cutbacks in the cotton textile industry was received without much surprise in the market. There has been a great deal of optimism in Worth Street over an early return to near-normal production, the general feeling being that mills will be able to take reconversion in stride. The great obstacle to increased production, manpower, is seen as being eliminated gradually now that war plants are releasing workers.

Cotton Yarns Market

To put it mildly, at least, the cotton yarn market was left in a confused state as the result of war ending. One important item of news which is expected from Washington is the freeing of spindles for carded, combed and mercerized counts. Mills were counting on a continuance of the market jam until official word arrived.

Revocation of M-317B, the cotton sale yarn order, was recommended by the War Production Board's combed cotton yarn industry advisory committee after the corresponding carded yarn group advised its suspension for 90 days except for export set-aside provision.

Yarn suppliers are being flooded with inquiries for every kind of combed and carded yarn normally used by civilian manufacturers. Military cutbacks were seen as making additional millions of pounds available for the civilian trade. Spinners are anxious to transfer this yarn to new end-uses as quickly as possible to aid reconversion.

The Agriculture Department has forecast a United States cotton crop for 1945 of 10,134,000 bales of 500 pounds gross weight based upon information as of Aug. 1. This would be 17 per cent or 2,096,000 bales less than 1944 production and 2,159,000 bales less than average production for the ten-year (1934-43) period. The indicated lint yield per acre of 269.7 pounds is 39 pounds above average and has been exceeded in only three years—1944, 1942 and 1937. Allowing for average abandonment of acreage in cultivation as of July 1, the acreage for harvest this year is computed at 18,034,000 acres—ten per cent below acreage harvested in 1944 and the smallest during any of the last 60 years. A report from the Bureau of the Census shows 132,541 bales of cotton ginned from the crop of 1945 prior to Aug. 1, compared with 48,182 bales for 1944 and 107,053 bales for 1943.

This year's crop generally is late and there have been numerous complaints of poor stands. Weather during the last half of July, however, has been beneficial in most areas. Per acre yields are expected to be below those harvested last year in all states except Florida, New Mexico and California. However, above average yields are in prospect for all states except Missouri, Oklahoma, California, Kentucky and Illinois. No estimate of cottonseed production will be made until December. If the ratio of cotton lint to cottonseed is the same as the average for the last five years, however, production of cottonseed would be 4,179,000.

Mill Vacations Cut Rayon Shipments

July total rayon shipments at 61,500,000 pounds were four per cent below the 64,000,000 pounds delivered in June, due to the usual July vacation period observed in some plants, states *Rayon Organon*. Filament rayon yarn represented 47,900,000 pounds of the July shipments, while staple fiber accounted for 13,600,000 pounds. Corresponding June data show 50,600,000 pounds of yarn and 13,400,000 pounds of staple delivered. Seven months' 1945 shipments aggregated 442,400,000 pounds of yarn and staple, with the former amounting to 346,600,000 pounds and the latter totaling 95,800,000 pounds. Corresponding 1944 data show a total of 400,400,000 pounds, of which filament was 304,200,000 pounds and staple 96,200,000 pounds. Percentagewise, total rayon shipments were up 10.6 per cent, yarn increased 13.9 per cent and staple was off by 0.4 per cent.

The rayon stock position continued low in July with a total of 9,700,000 pounds, of which yarn represented 6,000,000 pounds and staple fiber 3,700,000 pounds. At the end of July, 1944, yarn stocks totaled 8,800,000 pounds and staple 3,000,000 pounds.

First half-year rayon production at 394,600,000 pounds was 10.6 per cent above the corresponding 1944 production of 356,700,000 pounds, states the *Organon*. During the first quarter of 1945, 194,000,000 pounds were produced while in the second quarter output rose 3.4 per cent to 200,600,000 pounds. The main part of the increase occurred in viscose and cupra filament yarn, which rose from 108,600,000 pounds in the first quarter to 115,400,000 pounds last quarter. Acetate yarn output increased slightly from 43,200,000 pounds during the first quarter to 43,300,000 pounds in the second. Viscose staple was up by 200,000 pounds to 32,800,000 pounds in the second quarter, while acetate staple dropped from 9,600,000 pounds to 9,100,000 pounds over the same period.

Rubber Firm Employees Win Garden Prizes

Prizes in the third annual victory garden project of Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc., Passaic, N. J., were awarded recently. Nearly 400 gardens cultivated on the ten and one-half-acre tract, largest industrial garden project in New Jersey, competed for prizes. The grand prize winner, receiving a $25 war bond donated by Harry E. Smith, general manager of the Manhattan Division, was George Kevitt. The ten first prize winners, receiving $10 in war savings stamps given by the company, were Henry Van Horn, who won two prizes, one for each of his two plots, Marinus Treast, John P. Hahn, W. L. Sturtevant, John Baj, Charles M. Fitts, Jack Musial, Morris G. Fitts and E. Fetsman. Second prize pennants were awarded to 37 other gardeners, while 42 received honorable mention.

Westinghouse Acquires New Subsidiary

Acquisition of the B. F. Sturtevant Co. of Boston, Mass., pioneer in the design and manufacture of air handling and processing equipment, has been announced by A. W. Robertson, chairman of Westinghouse Electric Corp. The Sturtevant Co. will become a wholly-owned Westinghouse subsidiary, operating as the B. F. Sturtevant Co., a division of Westinghouse, and management of the company will be assumed by Westinghouse about Sept. 1. The Sturtevant

Co. products cover a wide range in the fan and blower field, heating, cooling and air conditioning apparatus, including application and design of complete air handling and processing systems for such industries as textiles, tobacco, paper and explosives. The headquarters of the expanded Westinghouse air conditioning activities will be located at Boston. However, heavy-duty and industrial refrigeration manufacture will continue at Jersey City, N. J., along with production of the Precipitron, an electronic air cleaner.

Conference Sponsored By American Viscose

The deans of the country's leading textile schools and their representatives held a conference Aug. 7 and 8 at the American Viscose Corp. textile research department at Marcus Hook, Pa. In addition to studying the work of the textile research department, the group inspected the company's chemical research department, standards department, and the local Marcus Hook rayon plant. The chief purpose of the conference was to acquaint the textile school representatives with the types of technical information concerning rayon and allied products that is available to them from the research departments, laboratories and production personnel of the American Viscose Corp.

Statistics and Control Course Offered

An intensive course in industrial statistics and quality control for all industries has been scheduled Oct. 10-16 at North Carolina State College, Raleigh, according to an announcement from the school's extension division. Late developments and methods—under tight military censorship until recently—will be included in the course, for which there will be a fee of $50. A staff of full-time instructors, along with special contributors, will handle lecture and laboratory periods.

July Spinning Industry Activity Is Listed

The Bureau of the Census has reported that the cotton spinning industry operated during July at 102 per cent of capacity, based on an activity of 80 hours a week, compared with 118.8 in June this year and 115.4 in July of 1944. Active spindle hours for July totaled 7,922,813,588 or an average of 343 hours per spindle in place, compared with 9,239,765,994 for June this year and 8,603,032,057 for July, 1944.

A course in new synthetic textile fibers, yarns and materials, consisting of 15 evening lectures, will be given by Herbert R. Mauersberger, textile consultant and technical editor of *Rayon Textile Monthly*, beginning Oct. 1 at 7 p. m. in Room 214, Hamilton Hall, 116th St. at Amsterdam Ave., New York City. Sponsored by the extension division of Columbia University, the course will treat of all new man-made fibers.

Polymer Chemistry Clinic Is Held

In the first clinic of its kind in the country, 14 practicing chemists from leading industrial firms recently completed an intensive study of a number of modern techniques of polymer chemistry at the Polytechnic Institute of Brooklyn. Designed as advanced instruction for industrial chemists, this first laboratory clinic on the weight and shape of polymer molecules was under the direction of Dr. Herman F. Mark, director of Polytechnic's highpolymer research bureau.

During the five-day clinic all details of the various physical-chemical techniques of polymer chemistry were demonstrated. Members of the clinic participated in making measurements of osmotic pressure, of intrinsic viscosity, rate of sedimentation, diffusion and light scattering, all aimed at the determination of the size and shape of the giant polymer molecules. In the laboratory of the Highpolymer Research Bureau, which is the first complete division for polymer chemistry in an educational institution in the United States, instruments include, in part, osmometers, viscometers, an ultracentrifuge, and the new Rayleighometer. Several of the scientists brought samples of new rubbers and plastics which they are developing in their laboratories to the clinic to subject to the tests available at the institute. Among those attending the clinic were Dr. R. T. Armstrong of the North American Rayon Corp., Elizabethton, Tenn.; Dr. R. B. Blodgett of the rayon department of E. I. du Pont de Nemours & Co., Richmond, Va.; Dr. Robert D. Evans of the Goodyear Tire & Rubber Co., Akron, Ohio; A. E. Follett of the Copolymer Corp., Baton Rouge, La.; Dr. J. O. Hendricks of the Minnesota Mining & Mfg. Co., St. Paul, Minn.; Dr. S. F. Kern of the Celanese Corp. of America, Cumberland, Md.; A. H. McKee of the D. H. Litter Co., Inc., New York City; William H. Markwood, Jr., of the Hercules Powder Co., Wilmington, Del.; Dr. L. A. Matheson of the Dow Chemical Co., Midland, Mich.; Dr. R. W. Nebel of the rayon department of E. I. du Pont de Nemours & Co., Waynesboro, Va.; Dr. H. D. Noether of the Celanese Corp. of America, Newark, N. J.; Dr. Gilbert Pitzl of the rayon department of E. I. du Pont de Nemours & Co., Station B, Buffalo, N. Y.; Dr. Ernest Schweizer of the Celanese Corp. of America, Newark, N. J.; and Dr. Norton Wilson of the Shell Development Co., Emeryville, Calif.

Refiners Seek Grain Supply Increase

Virtual stagnation in the movement of corn from farm to elevator, persisting over a period of several weeks, has resulted in such extreme dearth of the grain at corn refining plants that two members of the industry have taken the unprecedented step of appealing direct to growers, via paid space and radio, to sell whatever corn they can spare above feeding requirements. Fear is expressed for the supply of starch. The industry's second largest plant had been closed down since Aug. 1 for lack of corn, and others face imminent shutdowns or are operating at far less than capacity.

The 17-state campaign for a $2,000,000 post-war "fighting fund" is fast gaining momentum, according to the National Cotton Council, which expects to use money collected for protection of cotton's markets against competition from other sources.

Pamphlet Is a 'Must' for Veterans

Wounded veterans are assured that in most instances their earning capacity need not be impaired even by serious disability. Nor need they lose out socially, or with the girl back home. These assurances, contained in the pamphlet, *Straight Talk for Disabled Veterans,* published by Public Affairs Committee, Inc., are tempered by the admission that the disabled men face a hard, gruelling task and that success will only come to those who work for it. "The fellow who would have made good with all of his body intact can make good despite the most severe body losses," writes Edna Yost, who prepared the pamphlet in collaboration with Dr. Lillian M. Gilbreth.

The authors describe a number of actual instances out of tens of thousands that could be cited to prove that men bearing all kinds of physical losses can achieve economic independence and build for themselves lives that are as satisfying and happy as anyone's. They point out that one company alone employs nearly 12,000 disabled men on regular jobs. They tell of cases in which men earned more after being disabled than before their injury. Disabled men are warned, however, that success does not come without great effort. They are urged to co-operate with their physicians and nurses in activities designed to overcome the effects of their injuries, and to get the best training possible for their future jobs. By law the disabled veteran is guaranteed an opportunity to prepare for work in which he will not find himself at an economic disadvantage. But the veterans are warned that the law is not going to be of much help unless they take some responsibility for discovering and training for the kind of work they are capable of doing.

The majority of the disabled are urged to prepare for normal work at a normal wage, making the choice exactly as they would have if they had not been injured. "Do not approach the problem of vocational choice," the pamphlet says, "by asking 'What are the jobs an armless man can do?' but by saying, 'I am a man with such-and-such abilities and assets to be used in suitable work.' . . . After you have chosen wisely and then trained wisely for some specific kind of work, you have at least as much to offer an employer needing that kind of work done as anyone else has," the pamphlet concludes. *Straight Talk for Disabled Veterans* is Pamphlet No. 106 in the series issued by the Public Affairs Committee, Inc., 30 Rockefeller Plaza, New York 20, N. Y.

Goodrich Develops New Tire Cord Tester

A new cord tension vibrator has been developed by B. F. Goodrich Co., Akron, Ohio, devised for the fatigue testing of cords for tires, belting and other products. The vibrator, which can also be used to test filaments for other purposes, is being manufactured by Ferry Machine Co. of Kent, Ohio. The apparatus supplies information on the fatigue resistance of cords, that is, the ability of the cord or fabric to withstand repeated small stresses far below the tensile strength of the material. Vibration rates can be changed. Heat can be applied to the material under test. The machine was invented by Dr. E. T. Lessig of the Goodrich physical research staff.

In some cases it was learned that the fatigue resistance of the used cord had decreased to the failure point, while the tensile strength actually had risen. Fatigue resistance of cords is especially important in tires because the normal life of a tire casing usually ends when any cords rupture, the breakage of a few being rapidly followed by failure of remaining cords in the same zone caused by the excessive transfer of the load to the cords not yet broken.

In determining the fatigue resistance of tire cord or other filaments with the new apparatus the material under test is suspended under static load and the upper grips placed in rapid vertical oscillation, which can be made so much faster than the natural frequency of the loaded cord that the lower weights cannot respond and therefore remain substantially motionless. By using these imposed frequencies well above the resonance frequencies of the loaded cords, close comparisons of nearly similar cords can be made.

Conditions of testing may be altered as desired through a wide range of vibrations per minute, static load, and lengths of the material under test. Temperature may be varied. With tire cord it was found that the test more nearly approached conditions in the tire when the vibrating cords were subjected to heat, with a temperature of about 250° F. found suitable. Temperatures ranging from 180 to 340° for this test have also been found satisfactory.

Eastman Bulletin Treats of Tenite II

Tenite II Melt Coating, a two-page bulletin prepared for the coating and laminating industries, has been issued by Tennessee Eastman Corp. This publication describes the coating and impregnating of fabrics with Tenite II, the Eastman cellulose acetate butyrate plastic. Coatings of this material are described as being waterproof, brilliant of

surface, flexible, and effecting a high degree of translucence. Coatings are applied by four methods: knife, roll, casting, and extrusion. Roll coating, considered to be the most practical for coating continuous webs, is described in detail, with a number of procedures to be followed. The name and address of a manufacturer of special machinery for applying Tenite II melt coatings is supplied. Temperature and viscosities of a typical Tenite formulation for melt coating are listed, together with a summary of estimated approximate costs. Tennessee Eastman Corp. is now offering samples of Tenite II for laboratory coating trials. Copies of *Tenite II Melt Coating* may be obtained from the corporation at Kingsport, Tenn.

Sales Organization Set Up By Terrell

The Terrell Co., with headquarters at 1200 North Church St. in Charlotte, became exclusive sales representatives effective July 1, 1945, for Terrell Machine Co., it is announced by the president, E. A. Terrell.

Products to be handled by the new company include bobbin cleaning, conditioning, and handling machinery, and the products of the Terrell Machine Co. bobbin and spool plant. Also, it will be exclusive sales representative for the rubberized fabric products, including pickers, lug straps, hold ups, bumpers, etc., produced by the Denman Tire &

E. A. Terrell

W. S. Terrell

Rubber Co. of Warren, Ohio. The Terrell Co., it is further announced, has taken over the sales representation for Economy Baler Co., Ann Arbor, Mich., in the territory formerly served by Terrell Machine Co.

The new company has taken over the sales personnel of Terrell Machine Co., including agency contracts with Geo. Thomas & Co., Ltd., Manchester, England; W. J. Westaway Co., Ltd., Hamilton, Ontario, and Montreal, Quebec; E. L. Jasper, Elizabeth, N. J.; R. D. Hughes Sales Co., Dallas, Tex.; and Roberto Zander, Buenos Aires, Argentina.

Terrell Machine Co. was incorporated in April, 1917, and until July 1 of this year had its own sales representatives. It is hoped by the new arrangement to provide still more efficient service to customers, by separating sales and production organizations. W. S. Terrell will serve the new organization as vice-president and treasurer, and Mrs. Jane J. Terrell as secretary.

The Textile Industry and Reconversion

(Continued from Page 20) of that service's huge demands for denims and chambrays. Military cutbacks and increased production in the fiberglas field had already reduced that particular program prior to the war's end.

As indicated in Mr. Krug's report, some agency controls will have to be retained until the textile market changes from a tight to a loose supply situation. The following actions are indicated: (1) revocation of the M-388 orders as of Sept. 30 and substitution of M-328B programs for them; (2) revocation of M-91, the duck production order; (3) amendment of L-99, the cotton fabrics loom freeze order; (4) amendment of M-317A, the cotton fabrics distribution order; (5) amendment of M-317B, the cotton yarn production order; and (6) placing the relief provisions of Paragraph (F) of M-328 on an automatic basis. WPB's textile, clothing and leather bureau is going forward with its mill production drive, but the likelihood is that its general character will be adapted to new conditions. From being an all-inclusive program it probably will be changed to concentrate on sections of the industry where the greatest shortages are expected to prevail.

In line with military textile cutbacks, the War Production Board has relieved fabric manufacturers of the necessity of putting aside a percentage of their production for rated orders, when rated orders are not available. In an amendment to the basic cotton conservation order, M-317, the board provided that if a manufacturer, because of military contract terminations, finds he cannot dispose of his merchandise on rated orders, he may obtain relief from the distribution restraints in the order by applying to WPB.

The action deleted paragraph (c) which required the use of ratings assigned by the preference rating schedules of M-317A and M-317B for certain fabrics and uses. The deletion makes possible the acquisition of these fabrics either without priority assistance or with ratings assigned by other WPB fabric orders. A new paragraph, (f)(4), has been added setting forth exceptions from the distribution schedules of M-317A and M-317B. When rated orders cannot be secured or when other restrictions of the distribution schedules cannot be met, automatic relief is made available.

To secure this relief, the manufacturer must mail three copies of the new form WPB-4325 to the textile, clothing and leather bureau at Washington, and one copy must be mailed to his WPB regional office. The forms must be mailed by registered mail. Relief from the distribution restraints becomes automatic within a period of seven days from the date of mailing unless WPB directs otherwise. The form can be filled only in the second month of any quarter, except where inability to comply with the distribution schedules results from termination of a military contract. In such a case, the form may be filed any time within five days after the termination notice has been received.

Rules governing the sale of cotton and rayon piece goods retained by mills after military contracts are cancelled or

cut back have been announced by the Office of Price Administration. Basically, the rules are to be very simple: Where OPA has a specific uniform dollar-and-cent ceiling price for a fabric, termination inventories can be sold at no higher than that price, even though the Army or Navy may have been permitted to buy at a higher price. Where no specific, uniform dollar-and-cent price exists, termination inventories can be sold at the military contract price.

Termination inventory, OPA said, is defined broadly to cover all goods subject to contract with military procurement agencies that are sold by the manufacturer to civilian users after the contract is terminated. Included are inventories of completed goods not yet delivered to the military agency, goods manfactured from work-in-process or from materials procured or manufactured to meet military orders, and even identical goods that the manufacturer continues to run from new materials in order to keep his looms in operation while he prepares to resume civilian production.

Cases Expected To Arise

A number of distinct types of cases are expected to arise, and OPA plans to deal with them as follows:

(1) Where there is a specific uniform dollar-and-cent ceiling price, that price will apply. (This includes rayon gray goods priced under RPS 23.) However, where the regulation allows a special premium above the civilian price for goods of premium quality sold to military agencies, that premium can be charged to civilian users for goods manufactured within 90 days after the date of contract termination. This is necessary, OPA said, because the materials necessary to produce goods of premium quality will remain in inventory to be worked off.

(2) Where no specific uniform dollar-and-cent ceiling price exists, and the goods have been sold in the gray state to the military agencies, the ceiling for civilian sales will be the mill's latest contract price for military sale. Many important military cotton fabrics have never been given specific ceilings by OPA. To attempt to price all these fabrics now would impose an impossible work load on OPA, the agency said. Likewise ceilings would be difficult to determine because of the varying conditions of manufacture, which have necessitated individual military contract prices that frequently vary widely as between different sellers.

(3) Where no uniform, specific dollar-and-cent ceiling exists, and the goods have been sold to the military only in the finished state, the ceiling price for civilian sale of gray goods will be the military contract price for the finished

goods less 105 per cent of the actual finishing cost (including working allowance, freight to finishing plant, and all other expenses incidental to the sale of finished goods).

(4) If the mill chooses to finish the goods in a civilian finish, the gray goods ceiling arrived at under one of the three preceding methods can be used as the "gray cost" in compuating a finished goods ceiling under MPR-127 (the finished piece goods price regulation).

(5) Where the mill retains finished goods, and sells them to civilian users in the military finish, the ceiling will be the lower of the military contract price, or a ceiling price computing a finished goods ceiling under MPR-127, the ceiling arrived at under rule (1), (2) or (3) above.

(6) Where goods in military finish are refinished for civilian sale, either by the mill or by an independent converter, the ceiling will be computed by applying a division factor of .915 to the acquisition price for the goods in the military finish (not to exceed the ceiling price arrived at under rule (5) above) and to working loss, freight and put-up; plus the actual finishing cost divided by .95.

In most cases settlements can be made on the "no cost" basis. This means that the contractor will have no claim against the government for the goods retained. The few cases in which such claims will exist will arise where military procurement agencies have been permitted to pay over-ceiling prices for standard fabrics, because such fabrics were made under special circumstances—for example, on looms not suited to their manufacture, or from purchased yarn instead of yarn manufactured by the contractor. In these cases, OPA said, it is only right that the military agencies should bear the added cost of this high-cost production, rather than to have the goods enter the civilian market at prices which would cause pricing difficulties at subsequent levels of production or distribution.

Steel Heddle Representatives Hold Meeting

A combined sales meeting of field engineers and salesmen of Steel Heddle Mfg. Co. and its subsidiary, Southern Shuttles Division of Greenville, S. C., was held recently at the parent company's general offices in Philadelphia. Those attending, who came from all major United States textile centers as well as Canada and Mexico, spent a day inspecting facilities by which their products (flat steel heddles, frames, reeds, war preparation equipment, drop wires and other harness accessories) are made and handled. Three

additional days were spent in being brought up to date on products which the company is planning to introduce.

The meeting was in anticipation of post-war mill needs, with attention centered on progress made in developing appropriate heddles for various fibers, uses of stainless steel and warp preparation. The salesmen and technicians were also advised of the forthcoming combined technical catalog and other printed matter and advertising planned.

J. J. Kaufmann, president and general manager of the parent company, and Robert J. Freitag, vice-president, treasurer and sales director, presided. Jack Kaufmann, Jr., vice-president of the company and Southern district manager, headed the delegation from the South.

Cotton Councillor 'Hot' Over 'Cool' Statement

The authenticity of an article in *Life* magazine contending that rayon and wool are cooler than cotton has been challenged by Oscar Johnston, president of the National Cotton Council, who has made *Life* a "sporting proposition" if the picture weekly stands by its two-page article. In its article, *Life* prominently displayed two cotton fabrics, a wool fabric, and three of rayon. It stated that the cotton fabrics were the hottest of the three types of material and that the cloth made of rayon was the coolest. However, in small type, *Life* admitted that the weave and finish, not fiber, determine the coolness of a fabric.

In a letter to Henry R. Luce, *Life's* editor-in-chief, Mr. Johnston said:

We realize the embarrassment you must suffer when some member of your editorial staff occasionally is "taken in" by a publicity agent, particularly when the result is so obvious a subterfuge as that which appears on pages 42 and 43 of your issue of July 2.

Certainly we would not call your attention to the matter were it not for the fact that your staff, unwittingly or not, has done a direct and damaging injustice to the largest single occupational segment of U. S. population.

Granting, even, that your readers could discover truth in this presentation by detailed, analytical reading, you cannot escape admission of bald misrepresentation through juggling of emphasis. We know that an editor of your experience and talent must admit in honesty that an utterly false impression has been created among the vast majority of your readers.

We would therefore like to make you a sporting proposition. If you maintain that the presentation referred to herein is accurate, will you provide for your readers a similar presentation during the coming winter to further your contention that cotton is warmer than wool and much warmer than rayon? If you admit the injustice we claim, will you provide to cotton a presentation of sufficient space and prominence to offset, insofar as a subsequent presentation can, the damage you have done?

SOUTHERN SOURCES OF SUPPLY

FOR EQUIPMENT, PARTS, MATERIAL, SERVICE

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

ABINGTON TEXTILE MACHINERY WORKS, Abingdon, Mass. Offices at Boston, Mass., and Charlotte, N. C.

ACME MACHINE & TOOL CO., 2516 Wilkinson Blvd., Charlotte, N. C.

ACME STEEL CO., 2838 Archer Ave., Chicago, Ill. Sou. Office and Warehouse, 603 Stewart Ave., S.W., Atlanta, Ga., F. H. Webb, Dist. Mgr. Sou. Sales Reps.: C. A. Carrell, 523 Clairmont Ave., Decatur, Ga., Phone Dearborn 6267; Marcus M. Brown, 1231 Lexington Ave. (Phone 8583), Charlotte, N. C.; William G. Polley, 937 Cherokee Lane, Signal Mountain, Tenn., Phone Chattanooga 9-2635; John C. Brill, 309 Magazine St., New Orleans, La., Phone Magnolia 1859. Warehouses at Atlanta, Ga., Greenville, S. C., New Orleans, La.

AKRON BELTING CO., THE, Akron, O. Sou. Reps.: Ralph Gossett and Wm. J. Moore, 15 Augusta St., Greenville, S. C.; The Akron Belting Co., 406 S. 2nd St., Memphis, Tenn.

ALLADDIN LABORATORIES, INC., 68 William St., New York 5, N. Y. Sou. Repr.: J. W. Baldwin, 124 E. Third St., Charlotte, N. C. Phone 3-2252.

ALLEN CO., 440 River Road, New Bedford, Mass. Sou. Repr.: L. E. Wooten, Fort Mill, S. C.

AMERICAN BLOWER CORP., P. O. Box 58, Roosevelt Park Annex, Detroit, Mich.; 7 N. 6th St., Richmond, Va.; 1211 Commercial Bank Bldg., Charlotte, N. C.; Room 714, 101 Marietta St. Bldg., Atlanta, Ga.; Room 309, Jahncke Bldg., 816 Howard Ave., New Orleans, La.; 619 Texas Bank Bldg., Dallas, Tex.; 312 Keller Bldg., Houston, Tex.

AMERICAN CYANAMID & CHEMICAL CORP., 30 Rockefeller Plaza, New York City. Sou. Office and Warehouse, Wilkinson Blvd., Charlotte, N. C., Hugh Puckett, Sou. Sales Mgr. Reps.: John D. Hunter, E. H. Driver, Paul F. Haddock, Charlotte Office; E. J. Adams, 1404 S. 22nd St., Birmingham, Ala.; Jack B. Button, 610 N. Mendenhall St., Greensboro, N. C.; C. B. Suttle, Jr., 423 Clairmont Ave., Decatur, Ga.; K. E. Youngchild, 10 South St., Mobile, Ala.

AMERICAN MOISTENING CO., Providence, R. I. Sou. Plants, Charlotte, N. C., and Atlanta, Ga.

AMERICAN PAPER TUBE CO., Woonsocket, R. I. Sou. Office: 513 S. Tryon St., Charlotte, N. C.; Jesse Hodges, Sou. Repr.

AMERICAN VISCOSE CO., 350 Fifth Ave., New York City. Sou. Office, Johnston Bldg., Charlotte, N. C., Harry L. Dalton, Mgr.

ARKANSAS CO., INC., P. O. Box 210, Newark, N. J. Sou. Repr.: Jasper M. Brown, 1204 Greenwood Cliff, Charlotte, N. C.

ARMSTRONG CORK CO., Industrial Div., Textile Products Section, Lancaster, Pa. Sou. Office, 33 Norwood Place, Greenville, S. C. J. V. Ashley, Sou. Dist. Mgr.

ARNOLD, HOFFMAN & CO., INC., Providence, R. I. Sou. Headquarters, 2130 N. Tryon St., Charlotte, N. C., Mgr., Walter T. Bunce, Phone 2-4073; Technical Service men: Reid Tull, 116 W. Thomas St., Salisbury, N. C., Phone 1497-J; Philip L. Lavoie, 2130 N. Tryon St., Charlotte, N. C.; John H. Graham, P. O. Box 904, Greenville, S. C., Phone 2922; John R. Brown, P. O. Box 749, Trussville, Ala., Phone 127; Warehouse, 2130 N. Tryon St., Charlotte, N. C.

ASHWORTH BROS., INC., Charlotte, N. C. Sou. Offices, 44-A Norwood Place, Greenville, S. C.; 215 Central Ave., S.W., Atlanta, Ga.; Texas Rep.: Textile Supply Co., Dallas, Tex.

ATWOOD MACHINE CO., Stonington, Conn. Sou. Rep.: Fred Sails, Johnston Bldg., Charlotte, N. C.

BAHNSON CO., THE, 1001 S. Marshall St., Winston-Salem, N. C.; 886 Drewery St., Atlanta, Ga.

BANCROFT BELTING CO., Boston, Mass. Warehouse and Sou. Distributor, Carolina Supply Co., Greenville, S. C.

BARBER-COLMAN CO., Rockford, Ill. Sou. Office, 31 W. McBee Ave., Greenville, S. C., J. H. Spencer, Mgr.

BARIUM REDUCTION CORP., S. Charleston, W. Va. Sou. Distributors: American Cyanamid & Chemical Corp.; F. H. Ross & Co., Charlotte, N. C.

BARKLEY MACHINE WORKS, Gastonia, N. C.

BARNES TEXTILE ASSOCIATES, INC., 10 High St., Boston, Mass. Sou. Office, 318 Montgomery Bldg., Spartanburg, S. C.

BECCO SALES CORP., Buffalo, N. Y. Sou. Reps.: J. D. Quern and D. S. Quern, 1930 Harris Road, Charlotte, N. C.

BEST & CO., INC., EDWARD H., Boston, Mass. Sou. Rep.: W. C. Hames, 185 Pinecrest Ave., Decatur, Ga., Phone Dearborn 5974; Ralph Gossett, William J. Moore, 15 Augusta St., Greenville, S. C., Phone 150.

BOND CO., CHAS., 617 Arch St., Philadelphia, Pa. Sou. Rep.: Harold C. Smith, Greenville, S. C.

BORNE, SCRYMSER CO., Works and Offices, 632 S. Front St., Elizabeth, N. J. Warehouse, 815 W. Morehead St., Charlotte, N. C. Sou. Mgr.: Russell C. Young; Repr.: John Ferguson, LaGrange, Ga.

BROWN CO., THE DAVID, Lawrence, Mass. Sou. Reps.: Greenville, S. C., Ralph Gossett and Wm. J. Moore; Griffin, Ga., Belton C. Plowden; Dallas, Tex., Russell A. Singleton Co., Inc.; Gastonia, N. C., Gastonia Mill Supply Co.; Spartanburg, S. C., Montgomery & Crawford.

BURKART-SCHIER CHEMICAL CO., Chattanooga, Tenn. Plants: Chattanooga-Knoxville-Nashville; Sales and Service: C. A. Schier, A. S. Burkart, W. A. Bentel, W. J. Kelly, Jr., George S. McCarty, A. J. Kelly, D. H. Gunther, care of Burkart-Schier Chemical Co., Chattanooga, Tenn.; H. V. Wells, care of Burkart-Schier Chemical Co., Nashville, Tenn.; Lawrence Newman, care of Burkart-Schier Chemical Co., Knoxville, Tenn.; James A. Brittain, 3526 Cliff Road, Birmingham, Ala.; Nelson A. Fisher, 629 Hillside Ave., Glen Ellyn, Chicago, Ill.; Byrd Miller, Woodside Bldg., Greenville, S. C.

BUTTERWORTH & SONS CO., H. W., Philadelphia, Pa. Sou. Rep.: J. H. Zahn, Johnston Bldg., Charlotte, N. C.

CAROLINA REFRACTORIES CO., Hartsville, S. C.

CARTER TRAVELER CO., Gastonia, N. C. R. D. Hughes Sales Co., 1812 Main St., Dallas, Tex., Texas and Arkansas; Eastern Rep. (including Canada): C. E. Herrick, 44 Franklin St., Providence, R. I.; European Rep.: Mellor, Bromley & Co., Ltd., Leicester, England.

CHARLOTTE CHEMICAL LABORATORIES, INC., Charlotte, N. C. Peter S. Gilchrist, Jr., Rep.

CHARLOTTE LEATHER BELTING CO., 314 E. 6th St., Charlotte, N. C. Sales Reps.: J. E. Beattie, P. O. Box 82, Greenville, S. C.; J. L. Harkey and P. L. Pindell, Charlotte Office.

CIBA CO., INC., Greenwich and Morton Sts., New York City. Sou. Offices and Warehouses, Charlotte, N. C.

CLINTON CO., Clinton, Iowa. Sou. Reps.: Luther Knowles, Box 127, Phone 2-2486, Charlotte, N. C.; Grady Gilbert, Box 342, Phone 3192, Concord, N. C.; Clinton Sales Co., Inc., Geo. B. Moore, Box 481, Phone 822, Spartanburg, S. C., and 900 Woodside Bldg., Greenville, S. C., Phone 3713, Boyce L. Estes, Box 132, LaGrange, Ga. Stocks carried at Carolina Transfer & Storage Co., Charlotte, N. C.; Consolidated Brokerage Co., Greenville, S. C.; Bonded Service Warehouse, Atlanta, Ga.; Textile Products Distributing Co., Rock Hill, S. C.; Industrial Chemicals, Roanoke Rapids, N. C.

COCKER MACHINE & FOUNDRY CO., Gastonia, N. C.

COLE MFG. CO., R. D., Newnan, Ga.

COLUMBIA SUPPLY CO., Columbia, S. C.

CORN PRODUCTS REFINING CO., 17 Battery Place, New York City. Corn Products Sales Co., Southeastern Bldg., Greensboro, N. C., W. Rouse Joyner, Mgr.; Corn Products Sales Co., Montgomery Bldg., Spartanburg, S. C.; Corn Products Sales Co., Woodside Bldg., Greenville, S. C., J. Alden Simpson, Mgr.; Corn Products Sales Co. (Mill and Paper Starch Div.), Hurt Bldg., Atlanta, Ga., J. Cantey Alexander, Mgr.; Corn Products Sales Co., Comer Bldg., Birmingham, Ala., L. Hawley Kelley, Mgr. Stocks carried at convenient points.

CROMPTON & KNOWLES LOOM WORKS, Worcester, Mass. Sou. Offices and Plant: 1505 Hutchinson Ave., Charlotte, N. C.

CURTIS & MARBLE MACHINE CO., 72 Cambridge St., Worcester, Mass. Sou. Reps.: Greenville, S. C., 1000 Woodside Bldg., W. F. Woodward, Tel. 3336; Dallas, Tex., C. T. Daniels, care Textile Supply Co.; New York, N. Y., 200 Fifth Ave., F. C. Bryant.

DARY RING TRAVELER CO., Taunton, Mass. Sou. Rep.: John E. Humphries, P. O. Box 843, Greenville, S. C.; John H. O'Neill, P. O. Box 720, Atlanta, Ga.; H. Reid Lockman, P. O. Box 515, Spartanburg, S. C.

DAYTON RUBBER MFG. CO., Dayton, O. Sou. Reps.: J. O. Cole, P. O. Box 846, Greenville, S. C.; Kenneth Karns, P. O. Box 846, Greenville, S. C.; Thomas W. Meighan, 1364 Middlesex Ave., N.E., Atlanta, Ga.; T. A. Sizemore, 525 Grove St., Salisbury, N. C. Sou. Jobbers: Greenville Textile Supply Co., Greenville Belting Co., Greenville, S. C.; Textile Mill Supply Co., Charlotte, N. C.; Odell Mill Supply Co., Greensboro, N. C.; Young & Vann Supply Co., Birmingham, Ala.; Industrial Supply, Inc., LaGrange, Ga.; Textile Supply Co., Dallas, Tex.

DENISON MFG. CO., THE, Plant and Sales Offices, Asheville, N. C. Sou. Service Rep.: L. O. Denison, P. O. Box 4072, Asheville, N. C.

DODENHOFF CO., W. D., 619 Rutherford St., Greenville, S. C. Rep.: John C. Turner, 107 16th St., N.W., P. O. Box 916, Atlanta 1, Ga., Phone Walnut 2735.

DRAPER CORPORATION, Hopedale, Mass. Rhode Island Warp Stop Equipment Branch, Pawtucket, R. I. Sou. Offices and Warehouses, Spartanburg, S. C., Clare H. Draper, Jr.; Atlanta, Ga., 242 Forsyth St., S.W., W. M. Mitchell.

DU PONT DE NEMOURS & CO., INC., E. I., Electrochemicals Dept., Main Office, Wilmington, Del.; Charlotte Office, 414 S. Church St., LeRoy Kennette, Dist. Sales Mgr. Reps.: J. L. Moore, Technical Man; N. P. Arnold, 2386 Alston Dr., Atlanta, Ga., Technical Service Man; O. S. McCullers, 208 McPherson Lane, Greenville, S. C., Tech. Rep.

EATON, PAUL B., 218 Johnston Bldg., Charlotte, N. C.

EMMONS LOOM HARNESS CO., Lawrence, Mass. Sou. Plant, 118½ W. Fourth St., Charlotte, N. C., George A. Field, Mgr.; Clifton E. Watson, Mgr. Sou. Sales. Arthur W. Harris, Harris Mfg. Co., Agt., P. O. Box 1982, Phone Main 2643, Atlanta, Ga.; R. D. Hughes Sales Co., 1812 Main St., Dallas 1, Tex.

ENGINEERING SALES CO., 217 Builders' Bldg., Charlotte, N. C., and Allen Bldg., Greenville, S. C.; S. R. and V. G. Brookshire.

FAFNIR BEARING CO., New Britain, Conn. District Warehouse, 243 Spring St., N.W., Atlanta, Ga. A. G. Loughridge, Ga. and Ala. Rep.; Stanley D. Berg, 321 N. Caswell Rd., Charlotte, N. C., Carolinas Rep.

FIDELITY MACHINE CO., 3908-18 Frankford Ave., Philadelphia, Pa. Sou. Reps.: R. C. Aycock, 911 Provident Bldg., Chattanooga, Tenn.

FOSTER MACHINE CO., Westfield, Mass. Sou. Offices, 509 Johnston Bldg., Charlotte, N. C.

FRANKLIN PROCESS CO., Providence, R. I. Sou. Plants, Southern Franklin Process Co., Greenville, S. C.; Central Franklin Process Co., Chattanooga, Tenn.

GASTONIA BRUSH CO., Gastonia, N. C.

GATES RUBBER CO., Denver 17, Colo. Sales Offices and Warehouses at 605 W. Fifth St., Charlotte, N. C.; 801-2 Liberty National Life Bldg., Birmingham, Ala.; 110 Milby St., Houston, Tex.; 1710 N. Market St., Dallas, Tex. Sales Office at 738 C. & S. National Bank Bldg., Atlanta, Ga.

GENERAL COAL CO., 1217 Johnston Bldg., Charlotte, N. C. J. W. Lassiter, Sou. Sales Mgr. Reps.: H. G. Thompson, 21 Sylvan Ave., Asheville, N. C.; Guy H. Sowards, 2011 Fairview Road, Raleigh, N. C.; Hugh D. Brower, 2715 Lenox Road, Atlanta, Ga.; W. A. Counts, Res. Mgr., Law and Commerce Bldg., Bluefield, W. Va.; Dave B. Smith, Charlotte, N. C. Combustion Engineer, E. H. Chapman, Charlotte, N. C.

GENERAL DYESTUFF CORP., 435 Hudson St., New York City. Sou. Office and Warehouse, 2459 Wilkinson Blvd., Charlotte, N. C., S. H. Williams, Mgr.

GILL LEATHER CO., Salem, Mass. Sou. Reps.: Belton C. Plowden, Griffin, Ga., Tel. 3157; Mrs. W. G. Hamner, Gastonia, N. C., Tel. 229; Ralph Gossett, 18 Augusta St., Greenville, S. C., Tel. 150; Wm. J. Moore, P. O. Box 1523, Greenville, S. C., Tel. 150.

GOSSETT MACHINE WORKS, Franklin Ave., Ext., Gastonia, N. C.

GRATON & KNIGHT CO., Worcester 4, Mass. Sou. Reps.: D. A. Ahlstrand, S. E. Dist. Mgr., P. O. Box 4028, Atlanta, Ga.; W. F. McAnulty, 1240 Romany Road, Charlotte 3, N. C., Phone 3-9573; F. W. Tisdell, P. O. Box 4028, Atlanta, Ga., Phone; P. T. Pinckney, Jr., Route 2, Germantown, Tenn., Phone 9. Sou. Distributors: Hugh Black, Woodside Bldg. Annex, Greenville, S. C.; The Cameron & Barkley Co., 160 Meeting St., Charleston, S. C.; Columbus Iron Works Co., 901 Front St., Columbus, Ga.; The Textile Mill Supply Co., 1300 S. Mint St., Charlotte, N. C.; Arkansas Mill Supply Co., Inc., Fourth and Louisiana Sts., Pine Bluff, Ark.; Buhrman-Pharr Hardware Co., Texarkana, Ark.; Keith-Simmons Co., Inc., Cummins Station, Nashville, Tenn.; McGowin-Lyons Hardware & Supply Co., 113-125 N. Water St., Mobile, Ala.; Henry A. Petter Supply Co., 101-214 S. First St., Paducah, Ky.; Southern Supply Co., E. Orleans St., Jackson, Tenn.; Lewis Supply Co., Helena, Ark.; Standard Supply & Hardware Co., 822 Tchoupitoulas St., New Orleans, La.; Weaks Supply Co., Fourth and Jefferson Sts., Monroe, La.; Battey Machinery Co., 109-120 N. Second Ave., Rome, Ga.; The Cameron & Barkley Co., 605 E. Forsyth St., Jacksonville, Fla.; The Cameron & Barkley Co., 107 S. Franklin St., Tampa, Fla.; Fulton Supply Co., 342 Nelson St., Atlanta, Ga.; Sharp Battery & Electric Co., Broad at Fourth St., Chattanooga, Tenn.; Tennessee Mill & Mine Supply Co., 406-12 State St., Knoxville, Tenn.; The Young & Vann Supply Co., 1725 First Ave., Birmingham, Ala.; Lewis Supply Co., 477 S. Main St., Memphis, Tenn.

GREENSBORO LOOM REED CO., Greensboro, N. C. Phone 5678. Geo. A. McFetters, Mgr., Phone 2-0205; W. P. (Bill) Anderson.

GREENVILLE BELTING CO., Greenville, S. C.

GREENVILLE TEXTILE MILL SUPPLY CO., Greenville, S. C.

GULF OIL CORPORATION OF PA., Pittsburgh, Pa. Division Offices: Atlanta, Ga. A. M. Wright, Greenville, S. C.; W. G. Robertson, Jr., Spartanburg, S. C.; J. H. Hooten, Gastonia, N. C.; R. G. Burkhalter, Charlotte, N. C.; G. P. King, Jr., Augusta, Ga.; Boston, Mass.; New York, N. Y.; Philadelphia, Pa.; New Orleans, La.; Houston, Tex.; Louisville, Ky.; Toledo, O.

H & B AMERICAN MACHINE CO., Pawtucket, R. I. Sou. Offices, 815 The Citizens and Southern National Bank Bldg., Atlanta, Ga., J. C. Martin, Agt.; Johnston Bldg., Charlotte, N. C., Elmer J. McVey, Mgr.; Fritz Sweifel, Fred Dickinson, Jim Miller, Sales and Service Representatives.

HENLEY PAPER CO. (formerly Parker Paper Co.) Headquarters and Main Warehouse, High Point, N. C.; Warehouses and Sales Divisions: Charlotte, N. C., Asheville, N. C., Gastonia, N. C.

HERSEY, HENRY H., 44 Norwood Place, Greenville, S. C. Selling Agent for A. C. Lawrence Leather Co. and New England Bobbin & Shuttle Co.

HOUGHTON & CO., E. F., 303 W. Lehigh Ave., Philadelphia 33, Pa. Sou. Reps.: W. H. Brinkley, Gen. Sales Mgr., Sou. Div., 1301 W. Morehead St., Charlotte, N. C., Tel. 3-2916. Sou. Reps.: L. L. Brooks, 23 Jones Ave., Greenville, S. C., Tel. 4856-J; J. W. Byrnes, 701 N. San Jacinto St., Houston 2, Tex., Tel. Jackson 2-7443; C. L. Elgert, 300 Chesapeake Bank Bldg., 7 St. Paul St., Baltimore, Md., Tel. Saratoga 2388; T. E. Hansen, Rt. No. 2, Box 398, Glen Allen, Va., Tel. 5-1620; J. J. Reilly, 2788 Peachtree Rd., N.E., Apt. 6-B, Atlanta, Ga., Tel. Cherokee 7860; V. C. Shadden, P. O. Box 935, Chattanooga, Tenn.; C. G. Schultze, 1301 W. Morehead St., Charlotte, N. C., Tel. 3-2916; S. P. Schwoyer, P. O. Box 1507, or, 302½ Otteray Drive, High Point, N. C., Tel. 3654; J. W. Butler, 1301 W. Morehead St., Charlotte, N. C., Tel. 3-2916; W. C. McMann, 1301 W. Morehead St., Charlotte, N. C., Tel. 3-2916; H. J. Reid, 212 Lamont Drive, Decatur, Ga., Tel. Dearborn 4564.

HOUGHTON WOOL CO., 258 Summer St., Phone Liberty 1875, Boston, Mass. Sou. Rep.: Jas. E. Taylor, P. O. Box 2084, Phone 3-3692, Charlotte, N. C.

HOWARD BROS. MFG. CO., 44-46 Vine St., Worcester, Mass. Sou. Offices and Plants, 244 Forsyth St., S.W., Atlanta, Ga.; Guy L. Meicher, Sou. Agent; J. Floyd Childs, 219 223 S. Linwood St., Gastonia, N. C.; Carl M. Moore, Agent; Southwestern Rep.: Russell A. Singleton Co., Inc., 718 Brown Bldg., Austin, Tex.

IDEAL MACHINE CO., Bessemer City, N. C.

INDUSTRIAL COOLING & MOISTENING CO., 1440-44 S. Tryon St., Charlotte 3, N. C., G. A. White.

INDUSTRIAL RAYON CORP., Cleveland, O. Sou. Reps.: J. H. Mason, P. O. Box 897, Greensboro, N. C.; W. L. Jackson, 900 Woodside Bldg., Greenville, S. C.

JACOBS MFG. CO., THE E. H., Danielson, Conn., and Charlotte, N. C. Sou. Executive, W. Irving Bullard, Pres., Charlotte, N. C.; Sou. Sales Mgr., S. B. Henderson, P. O. Box 133, Greer, S. C.; Sou. Rep.: William P. Russell, Box 778 Atlanta, Ga.; Sou. Subsidiary, The E. H. Jacobs Mfg. Corp., Box 3096, Charlotte, N. C. Sou. Distributors: Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., Charlotte, N. C.; Charlotte Supply Co., Charlotte, N. C.; Gastonia Mill Supply Co., Gastonia, N. C.; Shelby Supply Co., Shelby, N. C.; Sullivan Hardware Co., Anderson, S. C.; Montgomery & Crawford, Inc., Spartanburg, S. C.; Carolina Supply Co., Greenville, S. C.; Greenville Textile Supply Co., Greenville, S. C.; Fulton Supply Co., Atlanta, Ga.; Southern Belting Co., Greenville, S. C.; Southern Belting Co., Atlanta, Ga.; The Young & Vann Supply Co., Birmingham, Ala.

JARRETT & CO., CECIL H., P. O. Box 647, Newton, N. C.

JENKINS METAL SHOP, Gastonia, N. C.

JOHNSON CHEMICAL CO., Statesville Ave., Phone 6450, Charlotte, N. C. P. O. Box 1418, Stephen J. Hawes.

JORDAN MFG. CO., W. H. & F., JR., 2126 E. Somerset St., Philadelphia 34, Pa. Sou. Rep.: E. B. Wheeler, P. O. Box 501, Charlotte 1, N. C.

KEARNY MFG. CO., INC., Kearny, N. J. (Hygrolit). Sou. Plant and Offices, Greenville, S. C. W. O. Slimback, Mgr. Sou. Reprs.: Harold Mahon, Greensboro, N. C.; Wm. P. Russell, Atlanta, Ga.; Russell A. Singleton, Austin, Tex.

KEEVER STARCH CO., Columbus, O. Sou. Office, 1200 Woodside Bldg., Greenville, S. C.; Claude B. Iler, Sou. Mgr. Sou. Warehouses: Greenville, S. C., Charlotte, N. C. Sou. Reps.: C. C. Switzer, Greenville, S. C.; Luke J. Castile, 924 Monticello Terrace, Charlotte, N. C.; F. M. Wallace, Homewood, Birmingham, Ala.

KEMPTON PARTS & SPRING CO., 246 Airline Ave., Gastonia, N. C.

KEYSTONE BELTING CO., 213 N. Third St., Philadelphia, Pa. Sou. Rep.: T. J. Digby, Jr., P. O. Box 244, Greer, S. C.

LAMBETH ROPE CORP., New Bedford, Mass. Charlotte Rep.: Frank Burke, Phone 3-4287.

LAUREL SOAP MFG. CO., INC., 2607 E. Tioga St., Philadelphia, Pa. Sou. Reps.: A. Henry Gaede, P. O. Box 1083, Charlotte, N. C.; W. R. Sargent, P. O. Box 1044, Greenville, S. C.

LAWRENCE LEATHER CO., A. C., Peabody, Mass. Henry H. Hersey, Selling Agent, 44 Norwood Place, Greenville, S. C.

LOPER CO., RALPH E., 500 Woodside Bldg., Greenville, S. C. New England Office, Buffington Bldg., Fall River, Mass.

MAGUIRE & CO., JOHN P., 370 Fourth Ave., New York City. Sou. Rep.: Taylor R. Durham, Liberty Life Bldg., Charlotte, N. C.

MARQUETTE METAL PRODUCTS CO., Cleveland, O. Sou. Rep.: Byrd Miller, Woodside Bldg., Greenville, S. C.

MATHIESON ALKALI WORKS, INC., THE, 60 E. 42nd St., New York City. Southeastern Dist. Sales Office: Liberty Life Bldg., Charlotte, N. C., Fred O. Tilson, Sou. Dist. Sales Mgr. Reps.: R. C. Staples, Z. N. Holler, Frank Thomas, John Staples, Vernon Woodside, Harold Dinges.

MEADOWS MFG. CO., P. O. Box 4354, Atlanta, Ga.

MERROW MACHINE CO., THE, 8 Laurel St., Hartford, Conn. Hollister-Moreland Co., P. O. Box 721, Spartanburg, S. C.

MILL DEVICES CO., Gastonia, N. C. R. D. Hughes Sales Co., 1812 Main St., Dallas, Tex., Texas and Arkansas; Eastern Rep. (including Canada), C. E. Herrick, 44 Franklin St., Providence, R. I.; European Rep.: Mellor, Bromley & Co., Ltd., Leicester, England.

MILLER, BYRD, Manufacturers' Agent, Woodside Bldg., Greenville, S. C.

MIXING EQUIPMENT CO., INC., Rochester, N. Y. Sou. Reprs.: R. E. Mason, 617 Johnston Bldg., Charlotte 1, N. C.; Edgar A. Rogers, Chattanooga Bank Bldg., Chattanooga 2, Tenn.; M. N. Dannenbaum Co., 2421 S. Wayside Drive, Houston 12, Tex.; D. A. Warriner, 7920 Zimple St., New Orleans 18, La.

NATIONAL ANILINE DIVISION, Allied Chemical & Dye Corp. Gen. Office, 40 Rector St., New York City. Julian T. Chase, Res. Mgr., 201 W. First St., Charlotte, N. C.; Kenneth Mackenzie, Asst. to Res. Mgr., 201 W. First St., Charlotte, N. C. Salesmen: W. L. Barker, R. B. Murdoch, Harry L. Shinn, Geo. A. Artope, 201 W. First St., Charlotte, N. C.; J. H. Shuford, Jefferson Standard Bldg., Greensboro, N. C.; H. A. Rodgers, 1202 James Bldg., Chattanooga, Tenn.; J. I. White, American Savings Bank Bldg., Atlanta, Ga.; W. H. Jackson, Apt. 10-A, Country Club Apts., Columbus, Ga.; A. Jones, Jr., 806 Masonic Temple Bldg., New Orleans, La.

NATIONAL RING TRAVELER CO., 354 Pine St., Pawtucket, R. I. Sou. Office and Warehouse, 131 W. First St., Charlotte, N. C. Sou. Agt., L. E. Taylor, Charlotte, N. C. Sou. Reps.: Otto Pratt, Union Mills, N. C.; H. B. Askew, P. O. Box 221, Griffin, Ga.

NATIONAL STARCH PRODUCTS, INC., 270 Madison Ave., New York 16, N. Y. Sou. Reprs.: Seth A. Meek, P. O. Box 364, Newberry, S. C., Tel. 216; Raymond T. Clarke, 226 Waccamaw Ave., Greenville, S. C., Tel. 6432-W.

NEW ENGLAND BOBBIN & SHUTTLE CO., Nashua, N. H. Sou. Reps.: Charlotte Supply Co., Charlotte, N. C.; Mrs. W. G. Hamner, Box 26, Gastonia, N. C.; Arthur W. Harris, 443 Stonewall St., S.W., Atlanta, Ga.; Henry H. Hersey, Norwood Place, Greenville, S. C.

N. Y. & N. J. LUBRICANT CO., 292 Madison Ave., New York City. Sou. Office, 1000 W. Morehead St., Phone 3-7191, Charlotte, N. C., Spartanburg, S. C., Atlanta, Ga., Greenville, S. C. Falls L. Thomason, Sou. Dist. Mgr.

NOBLE, ROY, New Bedford, Mass. Sou. Rep.: John P. Batson, P. O. Box 841, Greenville, S. C.

NORLANDER-YOUNG MACHINE CO., New Bedford, Mass. Sou. Plant, York Road, Gastonia, N. C.

ODELL MILL SUPPLY CO., Greensboro, N. C.

ONYX OIL & CHEMICAL CO., Jersey City, N. J. Sou. Reps.: Edwin W. Klumph, Cliff C. Myers, Liberty Life Bldg., Charlotte, N. C.; Cliff Smith, P. O. Box 671, Atlanta, Ga.

ORKIN EXTERMINATING CO., Pest and Termite Control. Carolina Offices, 1507 Liberty Life Bldg., Charlotte, N. C.; Main Office, 315 Peachtree St., N.E., Atlanta, Ga.

PABST SALES CO., 221 N. LaSalle St., Chicago 1, Ill. Sou. Rep.: C. H. Patrick, P. O. Box 300, Salisbury, N. C., Phone 1066. Sou. Warehouse, Textile Warehouse Co., Greenville, S. C.

PAGE BELTING CO., INC., P. O. Box 482, Concord, N. H. Sou. Repr.: William M. Virgin, 3410 Alta Vista Dr., Chattanooga, Tenn., Phone 2-9457. Special Repr.: L. Robert B. Rowland, P. O. Box 1313, Greenville, S. C., Phone 1302. Distributors: Dillon Supply Co., 5 West St., Raleigh, N. C.; Dillon Supply Co., Church St., Durham, N. C.; Dillon Supply Co., 5 Church St., Rocky Mount, N. C.; Dillon Supply Co., E. Mulberry St., Goldsboro, N. C.; Chattanooga Belting & Supply Co., 1221-1225 Market St., Chattanooga 1, Tenn.

PARKS-CRAMER CO., Plants at Fitchburg, Mass., and Charlotte, N. C. Atlanta Office, Bona Allen Bldg.

PEACH & CO., D. W., Gastonia, N. C. D. W. Peach.

PEASE & CO., 119½ E. Fifth St., Charlotte, N. C.

PENICK & FORD, LTD., INC., 420 Lexington Ave., New York City; Cedar Rapids, Iowa. P. G. Wear, Sou. Sales Mgr., 805 Bona Allen Bldg., Atlanta, Ga.; J. H. Almand, W. J. Kirby, Atlanta Office; C. T. Lassiter, Greensboro, N. C.; Guy L. Morrison, 902 Montgomery Bldg., Spartanburg, S. C. Stocks carried at convenient points.

PIEDMONT PROCESSING CO., Belmont, N. C.

PITTSBURGH PLATE GLASS CO., Columbia Chemical Div., Grant Bldg., Pittsburgh, Pa. Dist. Sales Office, 615 Johnston Bldg., Charlotte, N. C., James R. Simpson, Dist. Sales Mgr.

PROVIDENT LIFE & ACCIDENT INS. CO. (Group Accident and Health and Welfare Plans Div.), Chattanooga, Tenn. Southeastern Div. Office, 815 Commerical Bank Bldg., Gastonia, N. C.

QUAKER CHEMICAL PRODUCTS CORP., Conshohocken, Pa. Process Engineers: W. F. Hargrove, 3720 Keowee Ave., Apt. L, Sequoyah Village, Knoxville, Tenn., Tel. Knoxville 2-3574; N. J. Miller, 2301 Overhill Road, Charlotte 4, N. C., Tel. Charlotte 3-5351; Dudley B. Setzler, 10 Park Lane, N.E., Atlanta, Ga.; E. Niessen, V.-Pres., Pardee Lane, Wyncote, Montg. Co., Pa., Tel. Ogontz 1419.

RAGAN RING CO., Atlanta, Ga. John H. Foard, Box 574, Phone 178, Newton, N. C.

RAILWAY SUPPLY & MFG. CO., THE, Main Office: 335-37 W. Fifth St., Cincinnati 1, O. Tel. Cherry 7830; Atlanta Office: Erwin Wortsman, 888 Marietta St., Atlanta 1, Ga. Tel. Hemlock 1677; Charlotte Office: G. C. Tate and John Vogler, P. O. Box 1088, Charlotte 1, N. C. Tel. 4-1626; Dallas Office: D. F. McKinnon, 3200 Main St., Dallas, Tex., Tel. Central 6415.

RAY CHEMICAL CO., 2316 S. Blvd., Charlotte, N. C.

RHOADS & SONS, J. E., 35 N. Sixth St., Philadelphia 6, Pa. Sou. Office: J. E. Rhoads & Sons, 88 Forsyth St., S.W., Atlanta, Ga., P. O. Box 4305, C. R. Mitchell, Mgr. Sou. Reprs.: J. Warren Mitchell, P. O. Box 1589, Greenville, S. C.; A. S. Jay, P. O. Box 687, Sylacauga, Ala.; J. T. Hoffman, P. O. Box 4305, Atlanta, Ga.; L. H. Schwoebel, 615 Roslyn Road, Winston-Salem, N. C.; Textile Supply Co., 301 N. Market St., Dallas, Tex.

ROHM & HAAS CO., 222 W. Washington Square, Philadelphia, Pa. Sou. Office: P. H. Del Plaine, Dist. Mgr., 1109 Independence Bldg., Charlotte, N. C., Phone 2-3201; A. K. Haynes, 1811 Meadowdale Ave., N.E., Atlanta, Ga., Phone Atwood 2619.

ROY & SON CO., B. S., Worcester, Mass. Sou. Office, Box 1045, Greenville, S. C., Jack Roy, Rep. Sou. Distributors: Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., Charlotte, N. C.; Textile Supply Co., Dallas, Tex.

SACO-LOWELL SHOPS, 50 Batterymarch St., Boston, Mass. Sou. Office and Supply Depot, Charlotte, N. C., Walter W. Gayle, Sou. Agt.; F. Robbins Lowe and Charles S. Smart, Jr., Selling Agts. Atlanta, Ga., John L. Graves, Mgr., and Miles A. Comer, Selling Agt.; Greenville, S. C., H. P. Worth, Selling Agt.

SCOTT TESTERS, INC., 115 Blackstone St., Providence, R. I. Sou. Reps.: John Klinck, 304 Forest Ave., Augusta, Ga.

SEYDEL-WOOLLEY & CO., 748 Rice St., N.W., Atlanta, Ga. Reprs.: Vasser Woolley, John R. Seydel, E. A. Scott, A. Pate, Atlanta, Ga.; W. L. Whisnant, 734 Wilmar Dr., Charlotte, N. C. Northern and Export Rep.: Standard Mill Supply Co., 1064-1090 Main St., Pawtucket, R. I. (conditioning machinery and Penetrants only). Southwestern Reprs.: O. T. Daniel, Textile Supply Co., 301 N. Market St., Dallas, Tex.

SHELL OIL CO., INC., 50 W. 50th St., New York 20, N. Y. Div. Office Headquarters: 909 E. 22nd St., Baltimore 18, Md.; B. G. Symon, Mgr., Lubricants Dept., 50 W. 50th St., New York 20, N. Y.; Jay Trexler, Mgr. Industrial Products, Shell Oil Co., Inc., 909 E. 22nd St., Baltimore 18, Md., Phone University 4890; L. A. Gregg, Industrial Repr., 2010 Charlotte Drive, Charlotte 3, N. C., Phone 2-0704; James Lowry, Dist. Mgr., 613 S. Calvert St., Charlotte, N. C.; C. C. Hurst, Dist. Mgr., Shell Oil Co., Inc., Spring Garden St., Ext., Greensboro, N. C.; P. R. Phenix, Dist. Mgr., Shell Oil Co., Inc., Pinckney Court, Spartanburg, S. C.; J. C. Metze, Dist. Mgr., Shell Oil Co., Inc., 700 Blossom St., Columbia, S. C.; Div. Office: 400 William-Oliver Bldg., Atlanta 3, Ga., E. R. Boswell, Mgr. Industrial Products. Office and Bulk Depots: Atlanta, Ga.; Birmingham, Ala.; Chattanooga, Tenn.; Houston, Tex.; Jackson, Miss.; Jacksonville, Fla.; Knoxville, Tenn.; Macon, Ga.; Montgomery, Ala.; Nashville, Tenn.; New Orleans, La.

SINCLAIR REFINING CO., Dist. Office, 873 W. Peachtree St., Atlanta, Ga. State Offices: Atlanta, Ga.; Birmingham, Ala.; Jacksonville, Fla.; Columbia, S. C.; Charlotte, N. C.; Nashville, Tenn.; Jackson, Miss.. Industrial Reps.: C. C. Nix, P. O. Box 2111, Birmingham 1, Ala.; L. M. Kay, 932 Eighth St., N.E., Atlanta, Ga.; A. F. Landers, P. O. Box 1685, Lakeland, Fla.; R. R. Boatwright, P. O. Box 4009, Jacksonville 1, Fla.; S. M. Newsom, P. O. Box 31, Tifton, Ga.; J. O. Holt, P. O. Box 5516, State College Sta., Raleigh, N. C.; Marion K. Williams, 2837 Hillsdale Ave., Charlotte, N. C.; J. F. Welchel, P. O. Box 756 "E," Columbia, S. C.; P. A. Raiche, P. O. Box 291, Memphis, Tenn.

SIRRINE & CO., J. E., Greenville, S. C.

SLAUGHTER MACHINERY CO., 513 S. Tryon St., Charlotte, N. C.

SLIP-NOT BELTING CORP., Kingsport, Tenn. Sou. Reps.: E. S. Meservey, 134 McClean St., Decatur, Ga.; Ga. and Ala. Rep.: G. H. Spencer, P. O. Box 1297, Gastonia, N. C.; N. C. Rep.: Jack Alexander, Box 1623, Jhone 7777, Charlotte, N. C.; part of N. C. and S. C. Rep.: T. E. Doane, 1421 W. Sullivan St., Kigsport, Tenn.; Tenn. and Va. Rep.: J. D. Cox, V.-Pres., Greenville Hotel, Greenville, S. C., and Kingsport, Tenn.; O. L. ("Blackie") Carter, Box 2206, Phone 2043, Greenville, S. C.

SOCONY-VACUUM OIL CO., INC., Southeastern Div. Office, 1602 Baltimore Trust Bldg., Baltimore, Md. Warehouses: Union Storage Co., 224 W. 1st St., Charlotte, N. C.; Textile Warehouse Co., 511 Rhett St., Greenville, S. C.; South Atlantic Bonded Warehouse Co., Greensboro, N. C.; Columbia Warehouse & Truck Terminal, 902 Pulaski St., Columbia, S. C.; Tennessee District Office: Third National Bank Bldg., Nashville 3, Tenn.; Warehouses: Knoxville, Tenn., Chattanooga, Tenn., Nashville, Tenn., Columbia, Tenn., Memphis, Tenn., Johnson City, Tenn.

SOLVAY SALES CORP., 40 Rector St., New York City. Sou. Branches: 212 S. Tryon St., Charlotte, N. C., H. O. Pierce, Mgr. Sou. Reps.: Earl H. Walker, P. O. Box 2399, Greensboro, N. C.; H. W. Causey, 215 Middleton Drive, Charlotte, N. C.; M. W. Fletcher, 2973 Hardman Court, Atlanta, Ga.

SONOCO PRODUCTS CO., Hartsville, S. C.

SOUTHERN BELTING CO., 236-8 Forsyth St., S.W., Atlanta, Ga. Sou. Reps.: A. P. Mauldin, 1376 Graham St., S.W., Atlanta, Ga.; E. G. Merritt, 549 Peachtree Battle Ave., Atlanta, Ga.; J. J. Merritt, 1428 Peachtree St., N.E., Atlanta, Ga.; J. H. Riley, 3013 Monroe St., Columbia, S. C.; S. C. Smith, 2526 Delwood Drive, N.W., Atlanta, Ga.

SOUTHERN LOOM-REED MFG. CO., INC., Gaffney, S. C.

SOUTHERN SPINDLE & FLYER CO., Charlotte, N. C.

SOUTHERN STANDARD MILL SUPPLY CO., 512-514 W. Fourth St., Charlotte, N. C. A. Benson Davis, Mgr.

STALEY MFG. CO., A. E., Decatur, Ill. Sou. Offices, 2000 Rhodes-Haverty Bldg., Atlanta, Ga. Wm. H. Randolph, Jr., Southeastern Mgr.; L. A. Dillon, Asst. Southeastern Mgr. Sou. Reps.: George A. Dean, H. A. Mitchell, Montgomery Bldg., Spartanburg, S. C.; W. T. O'Steen, Greenville, S. C.; H. F. Taylor, Jr., P. O. Box 1303, Charlotte, N. C.; W. N. Dulaney, 12 Montevallo Lane, Birmingham, Ala.

STANLEY WORKS, THE, New Britain, Conn. Sales Reps.: A. Y. Bristoll, 104 Maple Ave., Tel. Narberth 3795, Narberth, Pa.; G. R. Douglas, 707 Columbian Mutual Towers, Tel. 8-7117, Memphis, Tenn.; M. A. Hawkins, 3813 General Taylor St., Tel. Upton 6057-J, New Orleans, La.; H. C. Jones, care The Stanley Sales Co., 651 Humphries St., S.W., Tel. Main 4110, Atlanta, Ga.; W. D. Low, Fox Drive, Chattanooga, Tenn.; G. J. McLernan, 209 Hubbard St., San Antonio, Tex.; C. W. Lynch, 2814 Arcadia St., Charlotte, N. C.

STEEL HEDDLE MFG. CO., Main Office and Plant, 2100 W. Allegheny Ave., Philadelphia, Pa. Greensboro Office, Guilford Bank Bldg., Box 1917, Greensboro, N. C., C. W. Cain, Mgr.; Henry P. Goodwin, Sales and Service, Greenville Office and Plant, 621 E. McBee Ave., Box 1899, Greenville, S. C., J. J. Kaufmann, Jr., Asst. V.-Pres. and Mgr. of Southern Divisions; Davis L. Batson and Sam Zimmerman, Jr., Sales and Service. Atlanta Office and Plant, 268 McDonough Blvd., Box 1496, Atlanta, Ga., Vernon A. Graff, Mgr.; Southern Shuttles, a division of Steel Heddle Mfg. Co., 621 E. McBee Ave., Greenville, S. C., J. J. Kaufman, Jr., Mgr.; Louis P. Batson, Director of Sales.

STEIN, HALL & CO., INC., 285 Madison Ave., New York City. Sou. Office, Johnston Bldg., Charlotte, N. C., Ira L. Griffin, Mgr., W. N. Kline, 2500 Roswell Ave., Charlotte, N. C.; E. D. Estes, 1257 Durand Dr., N.E., Atlanta, Ga.

STERLING RING TRAVELER CO., 101 Lindsay St., Fall River, Mass. D. J Quillen, Sou. Mgr., P. O. Box 443, Spartanburg, S. C.; D. C. Anderson, Sou. Repr., P. O. Box 629, Cedartown, Ga.

TERRELL MACHINE CO., Charlotte, N. C. E. A. Terrell, Pres. and Mgr.

TEXAS CO., THE, New York, N. Y. Dist. Offices, Box 901, Norfolk, Va., and Box 1722, Atlanta, Ga. Bulk Plants and Warehouses in all principal cities. Lubrication Engineers: P. C. Bogart, Norfolk, Va.; D. L. Keys, S. Brooklyn Sta., Baltimore, Md.; W. H. Boebel, Roanoke, Va.; F. M. Edwards, Goldsboro, N. C.; W. P. Warner and R. L. Scott, Greensboro, N. C.; B. D. Heath and C. W. Meador, Charlotte, N. C.; J. S. Leonard, Greenville, S. C.; F. G. Mitchell, Charleston, S. C.; L. C. Mitchum, Atlanta, Ga.; A. C. Keiser, Jr. Atlanta, Ga.; J. G. Myers, Birmingham, Ala.; P. H. Baker, textile engineer, New York, N. Y.

TEXTILE APRON CO., East Point, Ga.

TEXTILE SPECIALTY CO., Box 1297, Phone 2-2238, Greensboro, N. C. L. C. Atkisson, Greensboro, N. C.; F. A. Decker, 1119 Dilworth Rd., Charlotte, N. C.; John C. Turner, P. O. Box 916, Atlanta 1, Ga.; for Georgia and Alabama. Matthews Equipment Co., 93-A Broadway, Providence, R. I., for New England and Canada.

TEXWOOD MFG. & SALES CO., Greenville, S. C.

TIDE WATER ASSOCIATED OIL CO., 17 Battery Place, New York, N. Y. S. E. Dist. Office: 1122 S. Blvd., Charlotte, 3, N. C.; K. M. Slocum, Dist. Mgr., Charlotte 2-3063; Repr.: H. M. Richbourg, 123 W. Bell St., Statesville, N. C Tel. Statesville 971-R.

U S BOBBIN & SHUTTLE CO., Lawrence, Mass. Sou. Plants, Greenville, S. C.; Johnson City, Tenn. Sou. Reps.: E. Rowell Holt, 208 Johnston Bldg., Charlotte, N. C.; M. Ousley, P. O. Box 816, Greenville, S. C.; D. C. Ragan, High Point, N. C.; A. D. Roper, Johnson City, Tenn.

U. S. RING TRAVELER CO., 159 Aborn St., Providence, R. I. Sou. Reps.: William W. Vaughan and Wm. H. Rose, P. O. Box 792, Greenville, S. C.; Oliver B. Land, P. O. Box 158, Athens, Ga.; Torrence L. Maynard, P. O. Box 456, Belmont, N. C.; Harold R. Fisher, P. O. Box 83, Concord, N. C.

UNIVERSAL WINDING CO., Providence, R. I. Sou. Offices, 819 Johnston Bldg., Charlotte, N. C. Agts.: I. E. Wynne and R. M. Mauldin; 903 Norris Bldg., Atlanta, Ga., Acting Agt., I. E. Wynne.

VALENTINE & CO., J. W., New York City. Sou. Rep.: T. Holt Haywood, 62 S. Main St., Winston-Salem, N. C.

VEEDER-ROOT, INC., Hartford, Conn. Sou. Office, Room 231, W. Washington St., Greenville, S. C., Robt. W. Bailey, Sou. Sales Mgr.

VICTOR RING TRAVELER CO., Providence, R. I., with Sou. Office and Stock Room at 173 W. Franklin Ave., P. O. Box 842, Gastonia, N. C. Also W. L. Hudson, Box 1313, Columbus, Ga.

WAK INDUSTRIES, Charlotte, N. C.

WALKER MFG. CO., INC., Philadelphia, Pa. Sou. Rep.: R. T. Osteen, Sou. Mgr., 11 Perry Road, Phone Greenville 1669, Greenville, S. C. Greenville Textile Supply Co., Greenville, S. C.; Odell Mill Supply Co., Greensboro, N. C.; A. A. ("Red") Brame, 607 Northridge St., Greensboro, N. C.; D. B. Dorman, Box 66, Station C, Atlanta, Ga.

WARWICK CHEMICAL CO., W. Warwick, R. I. Sou. Branch Factory at Rock Hill, S. C. Sou. Reps.: M. M. McCann, Box 825, Burlington, N. C.; Henry Papini, 806 Mills Ave., Greenville, S. C.; W. E. H. Searcy, III, Box 123, Griffin, Ga.

WATER TANK SERVICE CO., Commercial Bank Bldg., Charlotte, N. C.; Republic Bank Building, Dallas, Tex.; 215 Union Ave., Memphis, Tenn.

WATSON-WILLIAMS MFG. CO., Millbury, Mass. Sou. Reprs.: W. F. Daboll, 703 Jefferson Bldg., Greensboro, N. C.; John W. Littlefield, 810 Woodside Bldg., Greenville, S. C.

WHEELER REFLECTOR CO., INC., 275 Congress St., Boston 10, Mass. Sou. Reprs.: Ernest Hall, 901-A Sul Ross St., Houston, Tex.; Marshall Whitman, Bona Allen Bldg., Atlanta, Ga.; R. T. Hardy, 1012 Garfield Ave., Palmyra, N. J.

WHITEHEAD MACHINERY CO., TROY, P. O. Box 1245, Charlotte, N. C. Phone 3-9831.

WHITIN MACHINE WORKS, Whitinsville, Mass. Sou. Office, Whitin Bldg., Charlotte, N. C., W. H. Porcher and R. I. Dalton, Mgrs.; 1317 Healey Bldg., Atlanta, Ga. Sou. Reps.: M. J. Bentley and B. B. Peacock; Atlanta Office, 1317 Healey Bldg.

WHITINSVILLE SPINNING RING CO., Whitinsville, Mass.

WOLF, JACQUES & CO., Passaic, N. J. Sou. Reps.: C. R. Bruning, 303 N. Ridgeway Drive, Greensboro, N. C.; G. W. Searell, R. No. 15, Knoxville, Tenn.

More than 90% of the Hosiery Made in America is Dyed in SMITH-DRUM Machines...

. . . and Here is the Reason

Dependable performance has earned for Smith-Drum Hosiery Dyeing Machines a position of outstanding leadership in sales over a long period of years. It is conservatively estimated that at least 9 out of every 10 pairs of hosiery made in this country and Canada are dyed in Smith-Drum Machines.

The rugged construction and careful workmanship which go into every Smith-Drum Machine are evidenced by the fact that many have been in daily operation for twenty-five years and longer, *with very low maintenance expense*. Even when it is necessary to send a Smith-Drum Machine to the factory for overhauling, it can usually be put in first-class condition at only nominal cost.

If you are interested in hosiery dyeing equipment that will reduce maintenance costs to rock bottom, get the complete facts on these Smith-Drum Machines. Descriptive booklet will be sent upon request. Write to . . .

Smith, Drum & Company, Allegheny Ave. at 5th St., Philadelphia 33, Pa.

Write for copy of this booklet

SMITH-DRUM Textile Machines

for hosiery dyeing, skein dyeing, package dyeing, beam dyeing, piece goods dyeing, package drying, skein mercerizing, warp mercerizing, hosiery inspection.

WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

A WARLESS WORLD is going to produce some first-rate problems for all of industry, and textiles will be no exception. Reconversion will be geared to the speed with which the government cancels war contracts and releases controls. The need for price revision upward will be immediate, because of the difference in selling in a civilian market and producing when the government is the one big customer.

Supply of labor will increase rapidly. There were 8,100,000 people working on munitions orders, of whom 2,000,000 are on reconversion. The armed forces have almost 12,200,000 men and women--civilians and in uniform. War contracts are being cancelled fast. A lot of workers will be laid off or discharged. Rate of demobilization, when started, will keep apace with return of soldiers from abroad.

Civilian needs will put much strain on textile industry during fall and winter months. Shortages in normal supply, demand for clothing by returning veterans and relief shipments abroad will keep mill orders at high level. Reconversion shift will be longer and easier in textiles than in most industries. The chief problem will be in getting needed price readjustments and revisions.

Strong pressure is being exerted on OPA's Bowles, most hard-headed of the bureaucrats, by Reconversion Director Snyder, who says scarce goods must go where they will do the most good in speeding orderly shift to satisfying civilian needs. Snyder recognizes that upward pressure on prices is inevitable as goods begin to flow into shortage vacuums. Bowles is softening up a bit and will go along. WPB's Krug is fast eliminating priority and allotment controls, and seeing eye-to-eye with Snyder.

Textile industry's biggest problem will soon loom in the foreign trade field. Germany, under economic controls and prohibition of munitions-making, is going to be allowed a relatively large scale of textile activity. Reason given is that textiles, along with food, timber and clay products, are not considered war material and will provide means of livelihood within the restricted living standard on which Germany will operate.

German output will be coming into competition with American textiles as soon as export markets open up. This competition will eventually be keen, because a standard of living no higher than that of liberated countries will be enforced upon the Reich population, and textiles is one of the items that will have latitude in the rigidly controlled and restricted German economy.

A post-war pattern for Japan much similar to that of Germany is very likely. This will mean quick rejuvenation of Japanese textile activity, with export pressures strong in the Middle East, Far East and South America.

(Over)

Need for close co-ordination of governmental function and distributing activity of mill operators will probably be more apparent as the peacetime economies of Germany and Japan take shape. Inevitably an effort will be made to bring the textile products of both countries --as well as those of the liberated nations and Britain--into the United States in increasing quantities. It is a trading point which will be used extensively in the councils of the victorious powers.

The governing factor is loans by this country. All Europe is expecting big dollar loans to get that continent's industry into production, and enter export markets. The little question of how repayment will be made does not seem to bother anyone. Europe is headed for socialism, but is expecting the United States to underwrite it, absorb the shocks and provide means for rebuilding what will be a competitive industry. Loans are wanted by European nations to buy capital goods such as textile machinery. Assuming that low wage levels will prevail in the rest of the world, odds are strong that this country will pay through the nose.

Government is being streamlined by Truman to incorporate independent agencies in the permanent establishment, and to reduce the component parts that come in contact with business and industry. The President feels the whole process of relationship with business and industry is too complicated, and vastly increases the problems of management. Long-sought changes are taking place.

Anti-trust is stepping up scrutiny of business practices and activity. Old cases are being dusted off and some new ones prepared. New Attorney General Tom Clark is not a "witch hunter," but wants business to conform to the rules of the game. He will not use criminal indictments to force business men to sign consent decrees. He's a relentless prosecutor, but a stickler for fair play.

Relations of President with Congress are friendly and developing an effective program of co-operation. The President is leaning much on Congressional advice, consulting both Democrats and Republicans. The relations are personal and direct, based on long and intimate associations, and are the best that have existed in many years between the two branches of government.

A type of administration all his own is being set up by Mr. Truman, with new faces already in, and more to come in. The New Deal, as such, is fading rapidly from the picture; bureaucrats are being curbed, and a policy of government by consultation substituted.

Tax revision is under study by Congressional experts, and some revision, applicable to the post-war years, is in early prospect. The tax committees will begin active work on revision early next month and finished legislation is likely before the year's end. The present intention is to wipe out excess profits taxes at one stroke, but business profits would remain subject to 40 per cent corporate normal tax and surtax.

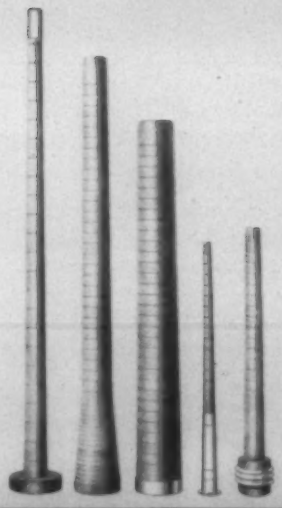
Tax committees are giving serious study to taxes business can bear in the reconversion period. Business men and industry will be given a careful hearing. Changes in individual income taxes are more distant.

Social Security revision and proposed enlargement received a severe set-back in the preliminary studies made by Congressional experts and actuaries. A tax of not less than 4½ per cent, on both employer and employee, is asserted to be necessary to pay the scale of benefits to which the governmentis already committed. Enlargement would measurably increase the tax on each. Tax committees are shocked at possibility that the present program may "go busted" in 23 years without a tax increase. New legislation this year is in slim prospect.

A-P-T-

TUBES · QUILLS AND BOBBINS

Engineered LIKE A MINE



JUST as a surface mine is *engineered* to remove the ore at the lowest possible cost, so are A. P. T. Yarn Carriers *engineered* to promote low cost spinning, twisting and weaving. For instance, made of laminated paper, they practically eliminate splintering, chipping and splitting and thus last longer and give greater yarn protection. Bonded with waterproof cement and impregnated for water repellency, they also have great resistance to distortion from temperature and humidity changes. Other advantages are as follows:

1. **Perfect balance, which reduces vibration and saves wear on spindles and bearings.**
2. **Perfect spindle cling, which eliminates slippage.**
3. **Freedom from static.**
4. **Greater yarn capacity in some cases.**
5. **Smooth but controlled delivery, due to hard smooth surface and deep, well rounded corrugations.**
6. **Saving in power in some cases.**
7. **Great strength in view of light weight.**
8. **Great resiliency. Even if bent by abusive handling, they will usually straighten out on spindle.**

Join the hosts of satisfied A. P. T. users — give A. P. T. Yarn Carriers a trial now!

AMERICAN PAPER TUBE COMPANY

ESTABLISHED 1898 • • • WOONSOCKET, RHODE ISLAND

SALES REPRESENTATIVES: JESSE HODGES, P. O. BOX 784, CHARLOTTE, N. C. • JAMES L. COFFIELD, JR., 360 NORTH MICHIGAN AVE., CHICAGO, ILL. • W. J. WESTAWAY CO., LTD., HAMILTON, ONT., CANADA

Lightning strikes Twice

First IMPREGNOLE . . . and now

Durable Norane

REG. PAT.

✓ *Laboratory Certified for* WATER-REPELLENCY

✓ *Laboratory Certified for* DURABILITY

NORANE has already won an enthusiastic consumer acceptance that reflects the eminence of its famous companion-product, IMPREGNOLE. War has been NORANE'S critical proving ground, but despite limited civilian use, it has received national recognition as a superior durable water-repellent. Where more dependable durable water-repellency is needed, it is not too early to investigate the NORANE quality story.

WARWICK CHEMICAL CO.

West Warwick, Rhode Island

520 FIFTH AVENUE, NEW YORK 19, N. Y.

ROCK HILL, S. C.